City of Fresno

Downtown Transportation and Infrastructure Study

Project No. 100576/Phase 1 Report

Prepared for City of Fresno

December 20, 2006

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Chapter 1 - Introduction

The Downtown Transportation & Infrastructure Study (DTIS) addresses a wide range of issues including: access and circulation demands, one way versus two way circulation, the Mall, integration of bus and other forms of transit, pedestrian and traffic calming, the supply location and policies for parking, wayfinding, railroad and freeway barriers, and integration of high speed rail. The Downtown Transportation & Infrastructure Plan must support desired economic and livability visions for Downtown. The DTIS addresses near-term (2010), long-term (2030), and a vision (2050) planning horizons.

The intent of the DTIS is to build on prior planning efforts, particularly the 1989 Central Area Community Plan. DTIS's objective is to integrate and coordinate the prior planning efforts and outline a strategy to implement transportation improvements. We envision this task to be a "fresh look" at recent studies, rather than a summary of prior work. From a holistic Downtown viewpoint, how do all the current recommendations fit and how do they relate to the comprehensive vision for Downtown and the region? As appropriate, new measures will be defined by DTIS to update new issues and to complement other planned improvements.

ISSUES AND OPTIONS REPORT

This first report of the DTIS project summarizes previous planning efforts and describes the settings for near term and long term transportation for the Downtown Area. Its focus, however, is on identifying key transportation issues and macro level transportation improvement options. These issues and options will form the foundation for subsequent planning efforts of the DTIS project. The format of the report is in the form of an expanded outline, rather than a wordy narrative as it is intended as a discussion and working document.

The report is organized as follows:

Chapter 2 – Railroad Issues and Options

Chapter 3 – Traffic Issues and Options

Chapter 4 – Public Transit Issues and Options

Chapter 5 – Parking Issues and Options

Chapter 6 – Pedestrian Issues and Options

Chapter 7 – Bike Issues and Options

Chapter 8 – Fulton Mall Issues and Options

CENTRAL AREA COMMUNITY PLAN

The most comprehensive plan for the downtown area is the Central Area Community Plan which was adopted by the City in 1989. This Plan consisted of a Concept Plan, 12 subject elements and a discussion of three special issues. The Plan elements and special issue discussions were as follows:

Plan Elements

- Land Use
- Residential

- Commercial
- Government Facilities
- Industrial
- Transportation, Circulation and Parking
- Infrastructure
- Historic Preservation
- Culture and Entertainment
- Public Safety
- Urban Design
- Economic Development and Marketing

Special Issues

- Homeless-Special
- Signs-Special
- Fulton Mall Special

Key Land Use and Economic Recommendations

- The Heart of the Central Valley - Call for Downtown to be the commercial and retail district for the six county trade area
- Competing mid-rise buildings outside of downtown has reduced Fresno's competitive advantage.
- "There is a direct correlation between the explosion of fringe area development and the Central Area's growing problems. The statistics of overbuilding the suburbs and loss of markets in the Central Area and other parts of the City support it. Unless a clear edge is firmly established for what will constitute the extent of the City's geographic expansion over the next twenty years, and unless the City's adopted plans are followed with some measure of consistency, there appears to be little basis for actually reestablishing the economic vitality, strength and property functions of the Central Area."
- Cultural, historic, and government center
- "A clustering-tendency is promoted with the Plan's District approach. It is expected that the Central Area will embody a whole series of images and functions that will accommodate a very broad range of markets, lifestyles, and purposes. The residential districts should be urban villages clustered around open space amenities and located in proximity to Central Area employment and cultural centers. The commercial, civic, and culturally-oriented districts should offer a variety of services within, or in close proximity to the retail, office, or activity centers in each district.
- "A well-defined major street system is intended to move goods and people to and from each of the Districts and the freeway loop system encircling the area."
- Protect convention center by restricting development of convention facilities outside of downtown
- Develop central area mixed-use zone
- Strengthen City's plans and policies to redirect and bring balance to suburban growth that will be

supportive of Central Area revitalization.

Review of this Plan by the consultant team and by the TAC, found the Central Area Community Plan continues to provide a strong framework for future planning.

Figure 1-1 illustrates the land use concept for the downtown area. It describes a series of sub districts within the Central Area that are intended to establish an identity for the district which is both specific to the particular district and cumulative for the Central Area as a whole. The definition of districts boundaries is based upon transportation and pedestrian systems that create both linkages to interconnect activity centers and a synergistic energy for the Central Area's revitalization. The concept plan envisions a core area, roughly bounded by the UPRR tracks, Inyo, the BNSF tracks and Tuolumne Street. The Concept Plan shows a boulevard (Divisadero Street) passing through the medical center commercial district.

The idea of pedestrian based districts is very important to the design of an effective multimodal transportation system, as well as providing many other livability benefits. Viable walking distances are keys to the design of pedestrian systems, transit routings, and parking strategies. Most people are willing to walk two city blocks for most trips, three for other trips but rarely more than six city blocks. It should be noted that short block lengths tend to increase the proportion of trips that are made on foot. The Core Area is approximately six blocks between Inyo Street and Tuolumne Street and ten blocks between the UPRR tracks and the BNSF tracks. It is generally a walk able distance. The entire Central Area between SR-41 and SR-180 along H Street is about 20 city blocks in length. Few people would walk this distance.

The land use element does recognize the benefits of mixed uses within each of the districts, but it is not specific in terms of residential neighborhood retail center locations, nor does it detail how grocery stores, active parks and schools fit into the downtown land use plan. All of these uses are important in the downtown to maximize pedestrian trips and the overall livability benefits of living, working and shopping downtown. A grocery store typically needs about 6,000 residents to support it.

Transportation, Circulation and Parking Goal

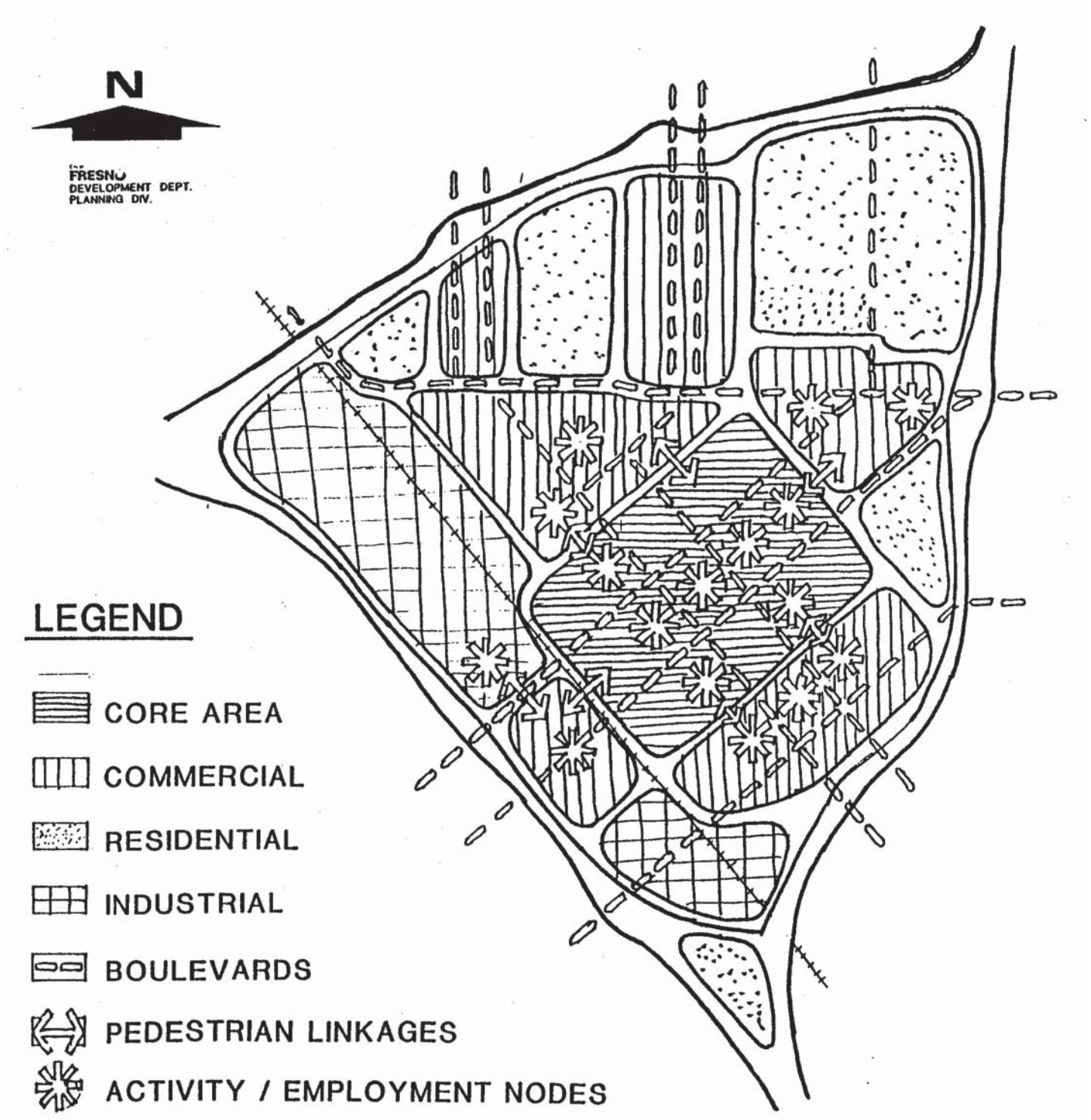
The Central Area Community Plan defined a set of goals, policies and implementation actions for transportation. The goals are broad statements of philosophy that describe the hopes of the people and establish direction in the long term. Policies provide the basis for the consistent action directed toward achieving the goals. Implementation actions are ideas about how to create discrete projects and to carry-out the policies. The Transportation Goal is to "provide a balanced, effective, comprehensive transportation system to accommodate growth and enhance the vitality and livability of the Central Area". Policies and implementation actions for the transportation element from the Central Area Community Plan are as follows.

Policy 1 - Identify, maintain, and improve major "gateway" routes and intersections which serve the Central Area from local, regional and state transportation systems.

Implementation Actions

1. Provide functional and aesthetic development standards which clearly identify major "gateway" routes and intersections.

2. Improve "gateway" routes and intersections.



Source: Central Area Community Plan

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Figure 1-1
CENTRAL AREA CONCEPT PLAN
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Policy 2 - Enhance access to specific activity centers through a variety of transportation modes and facilities.

Implementation Actions

1. Develop a circulation system that links major activity centers to minimize traffic confusion and facilitate traffic flow. A cross-town transportation link should be developed to connect the Santa Fe corridor, Civic Center Square, the south end of the Fulton Mall District, and Chinatown, with a priority for utilizing the Kern corridor.
2. Develop and install unique signage that is effective and attractive.
3. Reevaluate the one-way street system within the Central Area to better facilitate access between activity centers.
4. Identify the parking demands of major activity centers within the Central Area and develop a convenient comprehensive program to accommodate these demands.
5. Establish pedestrian access routes to and between activity centers which promote pedestrian usage by providing a safe and aesthetically pleasing environment.
6. Develop an alternative mass transit system which can effectively link the activity centers, such as a shuttle system.

Policy 3 - Establish a comprehensive transportation system which interconnects major activity districts within the Central Area to other activity areas in the City such as the Fresno Air Terminal, California State University Fresno, Fresno City College and Roeding Park and which places a higher priority upon development opportunities and the pedestrian environment than upon optimizing the vehicular capacity of the major street system.

Implementation Actions

1. Develop a transportation plan that will balance out the traffic-carrying needs of the Central Area land uses with the needs for an enhanced pedestrian and visual environment. The transportation plan should identify route alternatives, major activity centers, and appropriate design standards. Public Works standards for dimensional cross-sections of major and local street rights-of-way should be reevaluated to reflect a greater emphasis upon the pedestrian and visual environment. All proposed street widenings should be reevaluated.
2. Change the classification of Belmont Avenue, Fresno Street from Freeway 99 to Broadway, Ventura Street and Blackstone and Abby Streets within the Central Area, from Arterials to Collectors
3. Conduct a market survey (study) to determine system feasibility and rider demands.
4. Identify financial alternatives and funding sources
5. Develop a multi-modal transportation center in the Central Area.

Policy 4 - Develop "on" and "off" street parking which is adequate, safe and convenient to accommodate the requirements of the activity centers.

Implementation Actions

1. Establish a Comprehensive Master Parking Plan and Management Program
2. Consolidate the Central Area into one parking district.

3. Encourage development of a comprehensive program to operate public and private parking facilities which provide a safe and secure environment.
4. Provide incentives to encourage creative alternatives to parking problems (e.g. paying employees not to drive).
5. Encourage development of structures which integrate parking with other uses, such as commercial uses at street level.
6. Encourage development of new parking structures, where appropriate, to meet the changing needs of the Central Area.
7. Develop standards to allow for less costly development of temporary (with time certain) surface parking on underutilized or undeveloped properties.

Policy 5 - Provide a comprehensive pedestrian system for the Central Area that provides visual and physical amenities to link activity centers and districts.

Implementation Actions

1. Develop a conceptual pedestrian system in accordance with the standards in the Urban Design Element that provides full pedestrian amenities.

2. Provide for different levels of pedestrian space including broad sidewalks, pedestrian malls, through block passage ways, jogging paths, and mixed pedestrian/vehicular streets.

3. Establish program to monitor new developments in the Central Area to integrate pedestrian needs and provide appropriate improvements.

Policy 6 - Provide a comprehensive bikeway system to link activity centers and districts.

Implementation Actions

1. Formulate development standards which provide a bikeway system with good physical and visual amenities and various levels of design

2. Provide secure bicycle parking and storage in conjunction with public and private developments and in proximity to major activity centers.

3. Consider development of bicycle routes in conjunction with existing public and private transportation right-of-ways.

4. Develop a bicycle route system in the Central Area which links major activity centers, including residential, office, and commercial areas.

Transportation Planning Implication on Land Use

Convenient multimodal access and circulation is critical for economic success. The most efficient means of transportation is the pedestrian mode. In order to maximize pedestrian travel it is important that activity centers are located in close proximity. The more dispersed activity centers become in the Central Area, the lower the proportion of trips that will be made on foot. Shorter block lengths and short signal cycles will also tend to increase pedestrian travel.

UPRR & BNSF are required to sound their horns at at-grade pedestrian and traffic crossings. The Central Area is impacted by two very busy rail corridors with more than 60 trains a day sounding their horns as they pass through the area. This noise is detrimental to viable residential, hotel, medical and most other land uses. Noise is an important transportation/land use issue.

Land Use and Economic Clarifications
Land use is the most important determinant of transportation needs. The 1989 Central Area Community Plan's land use element appears to be consistent with a livable transportation system. Among the land use and development questions raised by the consultant team during the review of current plans are:

1. To what extent are the eight redevelopment districts in the Central Area cooperating versus competing for development? (Figure 1-2)
2. To what extent does the desire to preserve all of the historic buildings in the core area discourage revitalization of the area and push development to the perimeter?
3. Might it be better to focus night time entertainment near the ballpark, rather than disperse it?
4. Should more of the development be concentrated near the Fulton Mall, rather than spread throughout the Central Area?
5. Should the near-term redevelopment efforts focus around the Fulton Mall?

These are not transportation issues, but they impact the definition of the best strategy for implementing transportation improvements.

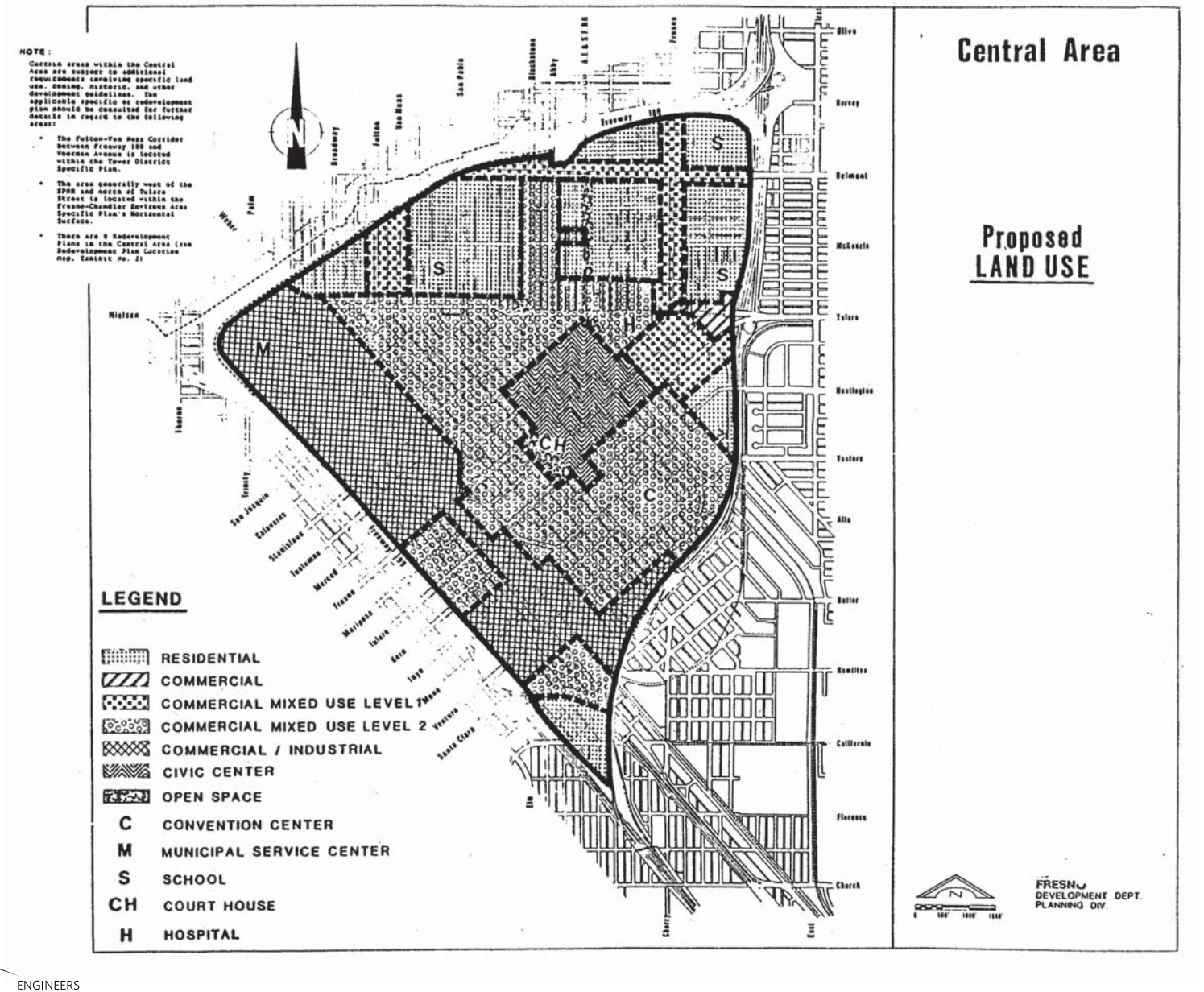
Compromises to the Circulation Plan Element
Plans are flexible documents and often bend to meet manifesting development and community benefit opportunities. Since the adoption of the Central Area Community Plan, a number of compromises have been made to the Central Area Community Plan's Circulation Element. Most of these compromises have been elimination of street linkages. The envisioned roles for Divisadero Street and Broadway have largely been lost and have compromised the integrity and simplicity of the envisioned network.

OTHER REPORTS

A number of other planning efforts have also addressed Downtown Fresno's transportation, land use and economic development issues and options. A brief overview of these reports is presented in this section. The overview does not capture all of the findings from these studies, but does attempt to reflect their spirit and content.

Making the Grass Greener (2006)

- Attraction for "knowledge workers"
- Create and promote vibrant and livable Downtown
- Create walk-able neighborhoods
- Improve Downtown streetscape and lighting
- Establish clear priorities for the Redevelopment Agency
- Establish a "pub crawl" like Santa Barbara's State Street or San Diego's Gaslamp districts
- Development should work around existing historic buildings
- Upgrade H street into a major thoroughfare



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Source: Central Area Community Plan

Figure 1-2
CENTRAL AREA PROPOSED LAND USE

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Central Area Urban Design Strategy (1992)

- 1,300 acres of land
- Regional center of the San Joaquin Valley
- Preservation of historic character that separates its from surrounding modern suburbia
- Mix of uses
- "Be Fresno"
- "Think smaller"
- Campus environment with good pedestrian connections
- Continue farmers market
- Relax zoning constraints near the Fulton Mall to create a vibrant eclectic of uses
- Super blocks
- Downtown education college district… "Contact has been made with the San Joaquin College of Law, California School of Professional Psychology, California State University, Fresno, Fresno Unified School District and Fresno County schools. All of these have shown interest in locating all or some of their facilities downtown within the Campus district.
- Make the mall shorter, shopping malls are generally 1,200 linear feet
- "… the mall would be enhanced by accentuating its appeal to the ethnic groups currently utilizing the mall, namely Hispanics.
- Create visitor center
- Calls for two-way traffic

Downtown Vision, an Advisory Report of the Downtown Improvement Group (2003)

- Perceptions indicate that public parking is inadequate and difficult to locate, public transportation is inadequate, streets are confusing, crime is high
- Create distinct districts connected by a traffic circulation loop, new shuttle system, pedestrian pathway

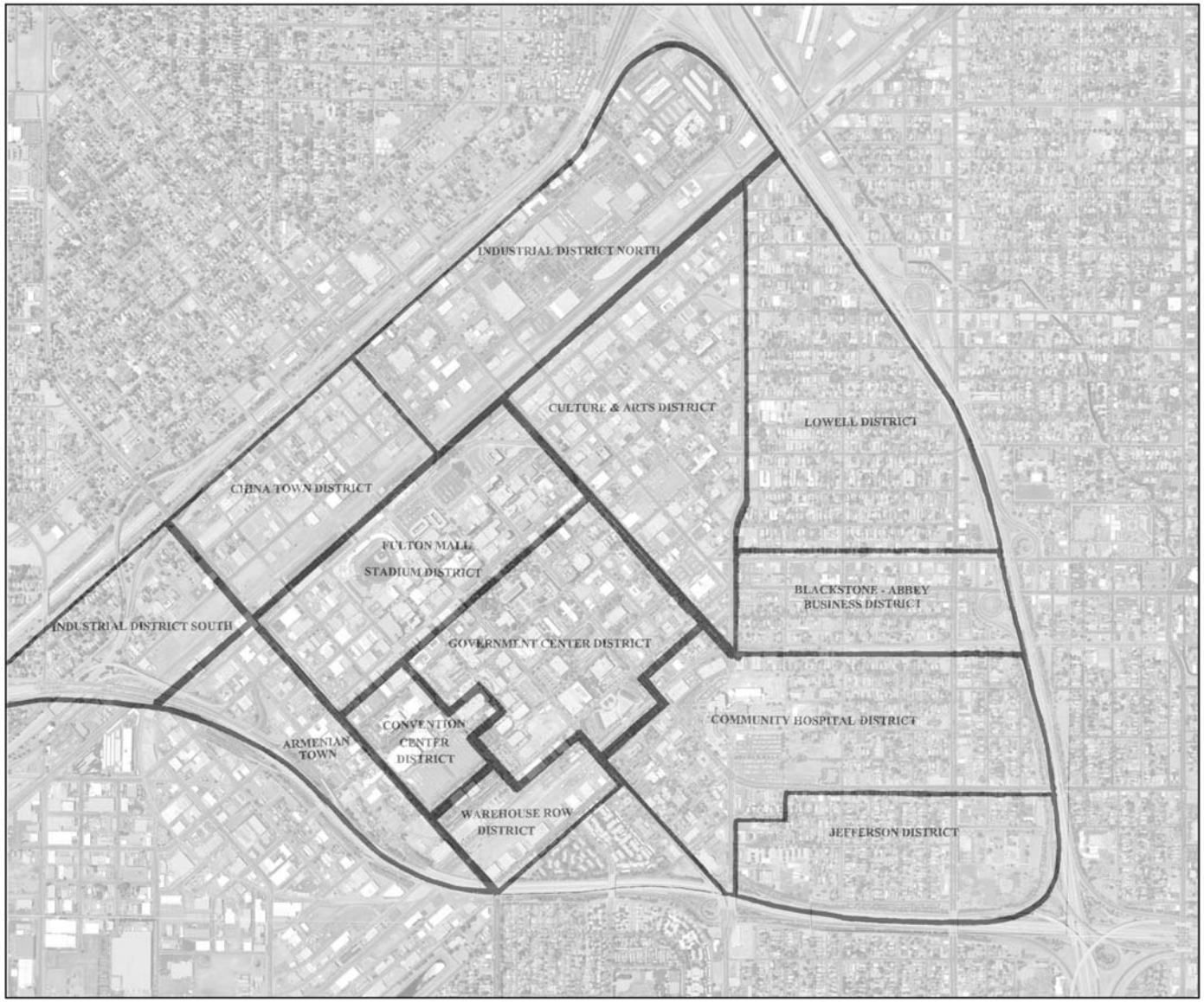
ULI Advisory Services Panel Report (1999)

- Issues include neglected rail corridors, crime, deteriorate physical conditions, single-purpose urban renewal projects, disconnected open space system, poor signage and lighting, vacant properties
- Lack of coordination
- Develop a clear, compelling, and overreaching vision linking Fresno's four main downtown nodes
- Restore part of the street grid, update street furniture
- Introduce more housing choices, (live/work, mixed-income)
- Improve connections, prioritize

- Create landmarks that would personify Fresno and its rich agricultural history
- Allow for merchants on the Fulton Mall, create public entertainment areas, eliminate raised seating areas, remove the clock tower
- Argue for two-way streets
- Prevent enclaves that block the buildings from the street
- Focus on an area
- Relocate the farmers market to the Fulton Mall, add events
- Focus restaurants on the south end.. .provide restaurant incentives
- Develop a retail incubator
- Create a PBID
- Re-do the INS building so that people don't have to wait outside
- Build kiosk
- 24 hours a day activity
- Historic re-use
- Make strategic alliances that use the Regional Medical Center as a catalyst for other medical related businesses.
- Don't add to the convention center considering the gaps

Downtown Planning Districts - "Vision 2010" (2003) (Figure 1-3)

- Follow-up of ULI plan that says "Just Do It"
- Convention Center, 80,000 sq. ft. CCSI office building on Tulare Street
- 385,000 sq. ft. Federal Courthouse
- Community Medical Center, UCSF Medical Education Research Center, Magnet School, and private medical offices
- Uptown – blight removal, streetscape improvements, parking, infill housing, and expansion for the museums
- Wyndham Hotel and convention center
- Chinatown streetscape improvements
- Armenian Town – Chamalian Office building, gateways
- Santa Fe Promenade and Depot Projects
- Festival and farmers market
- Riverwalk and lake project
- Downtown traffic loop concept
- Better use of H Street



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Source: ICom report on Downtown Revitalization

Figure 1-3
DOWNTOWN VISION 2010 - PLANNED DISTRICTS

Fulton Street Revitalization

- Destination tenants are required to support the stadium anchor and an entertainment anchor
- Develop a "story"
- Revise traffic patterns
- Parking must be signed
- Support new mixed use development
- Create farmers market
- Create central civic gather space
- Feature public art
- Concentrate commercial uses between Fresno and Inyo
- Rebuild street network at Merced and Kern streets
- Develop a pedestrian promenade on Mariposa
- Add water features
- A ten mile radius shows lower incomes but a larger market area shows sufficient capacity for retail demand as a destination retail location
- Stretches too long
- Should be three separate areas, shopping and entertainment to the south towards the stadium, assemble lands to the north for greater development
- Urban office park to the north, a mixed-use center, and an ethnic marketplace
- Three themes – Northern Segment as government center, residential use, with large blocks; Middle Segment as civic gathering place , for retail expansion, replacement of large clock tower; and Southern Segment as dining and entertainment with improved connections to the Stadium

Uptown Arts District – Master Plan Update (2000)

- Talks about a lot of facility expansions from African American Museum, Arts Americas, Cornerstone Church, Historical Museum, Metropolitan Museum, Warnor Theater, Valley Public Television
- Calls for streetscape improvements
- Land acquisition to consolidate parking
- Mixed-use development area at Calaveras and Fulton
- Historic preservation block where buildings are relocated – action step
- District Gateways
- Art Plaza/Bus Drop-off
- Pocket parks
- Farmers market locate contradicts with Fulton Mall concept
- Two-way traffic

Report to the City Council and Agency Board, (2002)

- ELS recommends reopening Fulton Street
- North governmental and housing campus
- Middle farmers market and public gathering

Growth Response Study from Fresno Council of Governments

- Overall interest to promote smart growth and encourage development around existing infrastructure
- Early phases of work have focused on travel demand forecasting, rather than land use and transportation investment decision-making
- Tested two regional alternatives one of which represented high density infill development in the Downtown and Blackstone Corridor

Destination Downtown – (Figure 1-4)

- Federal Courthouse-Civic Center Square: P Street, Inyo Street, M Street and Tulare Street
- Grizzly Stadium
- Community Medical Center/UCSF Medical Education Center/Magnet School Fresno Unified School District
- Uptown Streetscape Project
- Downtown Hotel
- Chinatown
- Armenian Town and Chamlian Office Complex
- Santa Fe Depot Renovation
- The Tower at Convention Center Court
- Guarantee Building
- IRS Compliance Center Ardex Building
- South Stadium Project
- Eaton Plaza – Water Tower (Mariposa Mall N to O Streets)

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Source: City of Fresno

Figure 1-4
VISION 2010 - DOWNTOWN FRESNO

KEY DTIS ISSUES

Transportation Management Strategic Policy - What are and will be the demands for access to downtown by mode and if mode choice targets are desired what measures might be needed to achieve these targets? What targets are realistic and achievable?

- Traffic Circulation - What are the conceptual level alternatives to the current predominantly one way street system including the interface with the Fulton Mall?
- Fulton Mall - What are the alternative transportation uses of the Fulton Mall?
- Transit - What are the options for accommodating FAX bus services downtown? What is the functional need for a downtown transfer center and where should it be located? Possible high capacity and fixed guideway transit service options?
- Parking - How much parking is needed and what are the supply options (short and long term parking purposes)? Mix of public versus private? Shared versus exclusive facilities? Fringe intercept versus dispersed or core area?
- Wayfinding - What are the wayfinding strategies for multimodal patrons and how might the structure of downtown and its transportation system simplify wayfinding?
- Pedestrian and Bicycle - What are the pedestrian and bicycle network concepts and how would these integrate with traffic and transit network options?

  High Speed Rail Station - What are the alignment and station options for high speed rail service and how do these options relate to other modes? Might a "what if" approach to HSR make sense for Downtown?
- Rail Consolidation - What are the rail consolidation implications for Downtown?

CHAPTER 2 – RAILROAD ISSUES AND OPTIONS

There are two major railroad issues that have a major influence on downtown development and the downtown multimodal transportation network.

1. Railroad Consolidation Plan which would move BNSF freight rains and Amtrak passenger trains onto the UPRR corridor through downtown and free the BNSF right of way for other uses.
2. California High Speed Rail (HSR) Plan which would establish high speed (200 mph) passenger rail service between Los Angeles and San Diego in Southern California and San Francisco, San Jose and Sacramento in Northern California.

The City of Fresno does not have control over decisions on either of these potential projects and neither is currently funded. Thus, both of these important projects are huge unknowns at this point in time and both have huge implications on the downtown. For these reasons, railroad issues are addressed first in this report. It is unlikely that either of these two important rail projects will be completed for the near-term planning horizon (2010), but one or both could be in place by the mid-term (2030) or long term (2050) planning horizon for the DTIS.

CURRENT SETTING

Today trains operate through the downtown area along two different corridors, BNSF and UPRR. The BNSF is a single track facility that bisects the Downtown. The UPRR is a double track facility which runs near the southeast edge of downtown, largely paralleling Highway 99. Key features of each corridor are as follows: (See Figure 2-1)

BNSF Rail Corridor

1. 30 daily freight trains
2. 12 daily Amtrak trains serving 700 daily boardings and alightings
3. 6 at-grade crossings Downtown
4. Mckenzie and Belmont the most dangerous
5. Noisy train horns
6. Freight customers located just south of Downtown

UPRR Rail Corridor

1. 20 daily freight trains
2. 5 at-grade crossings
3. 2 roadway over-crossings
4. 1 roadway under-crossing
5. Noisy train horns
6. Freight customers & track connections north and south of Downtown

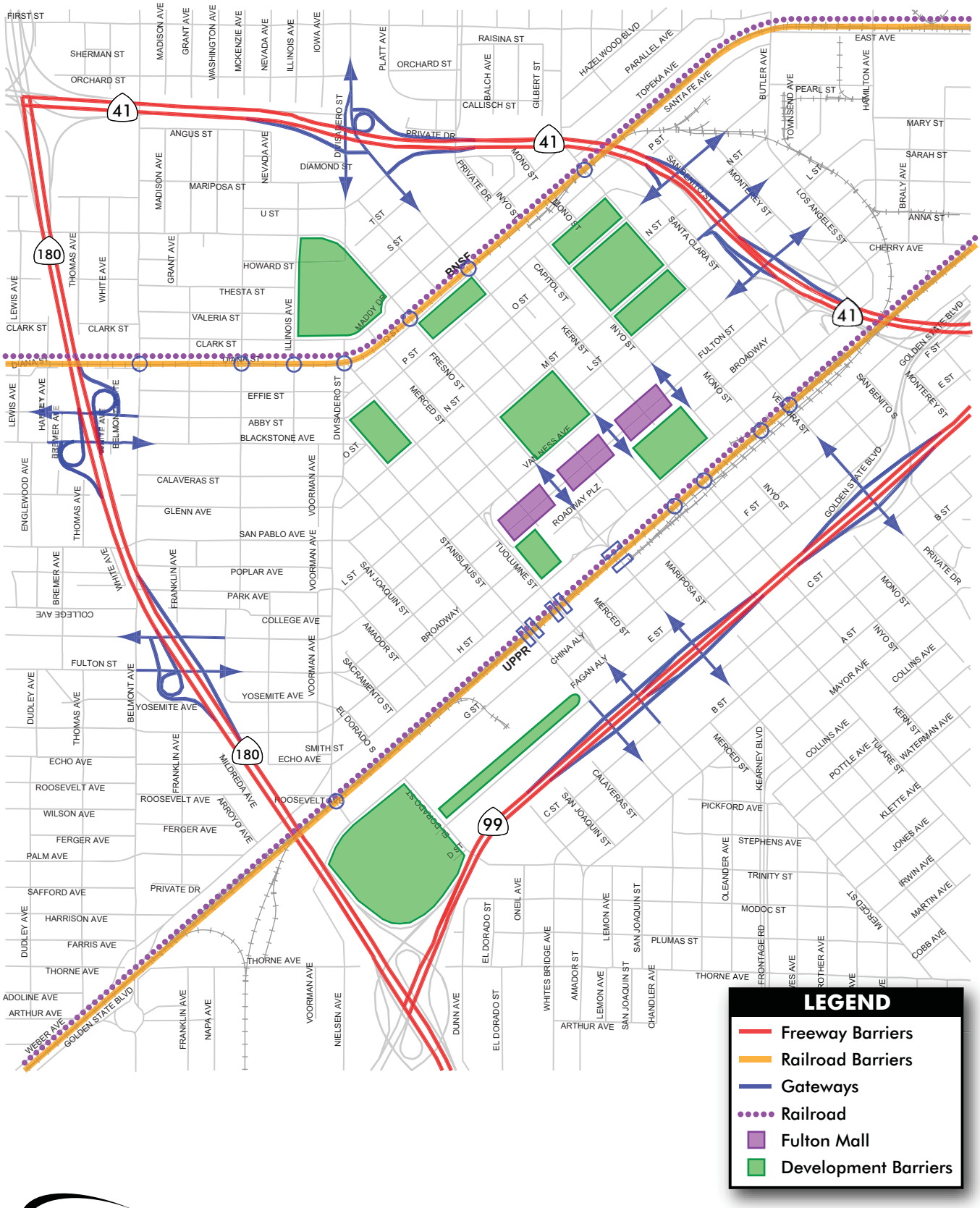

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Figure 2-1
RAILROAD CORRIDORS
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RAIL CONSOLIDATION ISSUES

The rail lines through Downtown and elsewhere in the city create a number of problems. The rail traffic results in traffic safety and traffic delay problems at street crossings as well as noise impacts. The traffic delays impact FAX bus schedule reliability as well as traffic. While there are rail freight customers along these lines in the city, few if any are located in the downtown area. To minimize traffic safety and delay concerns as well as noise concerns, the city has been planning the consolidation of BNSF and Amtrak trains onto the UPRR corridor. Approval by both railroads and assembling funding are essential to accomplish the desired consolidation. Unlike high speed rail, the freight consolidation effort will largely need to rely on local funding. It might be possible to piggyback the rail consolidation onto the high speed rail project, if the two projects are complementary. If they compete for limited right of way within the UPRR corridor, however, high speed rail could not be expected to help fund the rail consolidation project. Key features of the consolidation plans as it relates to downtown are:

- Divert BNSF and Amtrak trains to the UPRR corridor near Herndon and Calwa
- Need third freight track and perhaps a fourth in UPRR right of way
- Requires minimum of 100 feet of r/w for three/four track facility
- 2001 cost estimates ranged from $277 to $319 million
- Relocate Amtrak service & establish new station (probably need added station tracks)
- Grade separate Tulare (under), Ventura (over) and El Dorado (under)
- Ventura would become disconnected from G and H Streets
- Close crossings at G, Kern and Mono Streets

The consolidation of trains onto the UPRR corridor would require grade separations of all of its traffic crossings. This would also eliminate the need for trains to sound horns passing through downtown.

Both the BNSF and the UPRR want to transit the downtown area as fast a possible with minimal at grade crossings. They also have strong interest continuing to serve customers in the vicinity of downtown and to make connections to their freight yards – Calwa for BNSF and UPRR (between Ashland and Clinton Streets).

Once rail traffic has been shifted away from the BNSF corridor to the UPRR corridor, opportunities arise for the reuse of the BNSF corridor. It could function as a multi-use pedestrian and bicycle trail, or possibly a transit corridor.

HIGH SPEED RAIL ISSUES

The California High Speed Rail Authority is moving forward with more detailed preliminary engineering and environmental studies of the corridor through Fresno. The initial cost of building the California high speed rail system was $34 billion. This cost today is probably more than $60 billion. It will take time to complete the statewide system, but the high speed rail service would definitely benefit the city and if its preferred station site is located downtown it would prove a major asset. These are all very major and important ifs. Completion of the high speed rail system would seem to be a key foundation for implementing the San Joaquin Valley Blueprint Plan. Key features of the current high speed rail plan are as follows:

- Downtown station site location – near Fresno Street from Tuolumne to Kern streets
- Concept is aerial north and south of downtown and at grade downtown

- 70 to 90 daily high speed trains with half stopping in Fresno – is a bypass track needed
- Elimination of all at grade crossings for high speed rail service
- 2 track station cross section would need 70 feet of r/w
- 4 track station cross section would need 110 to 120 feet at stations
- Station platforms about 1,300 feet long
- Station siding tracks 3 mile in length
- Nearest stations at Bakersfield and Merced
- 6,800 daily passenger boardings and alightings forecast

See Figure 2-2

The high speed rail plan is silent regarding the local rail consolidation plans, but they both will compete for the same right of way in the UPRR corridor.

While a preference for a downtown station site has been accepted, further planning efforts might lead to the adoption of a remote station site located west of downtown. From the perspective of downtown passenger rail service (high speed) is a greater priority than freight rail service.

One of the high speed rail alignments through Fresno is near Grantland Avenue, which passes about 6 to 7 miles west of downtown (the airport is located les than six miles form Downtown). A station located along this more remote high speed rail alignment would need to be connected to downtown via a high quality connector. This remote station would not strengthen the downtown.

See Figure 2-3

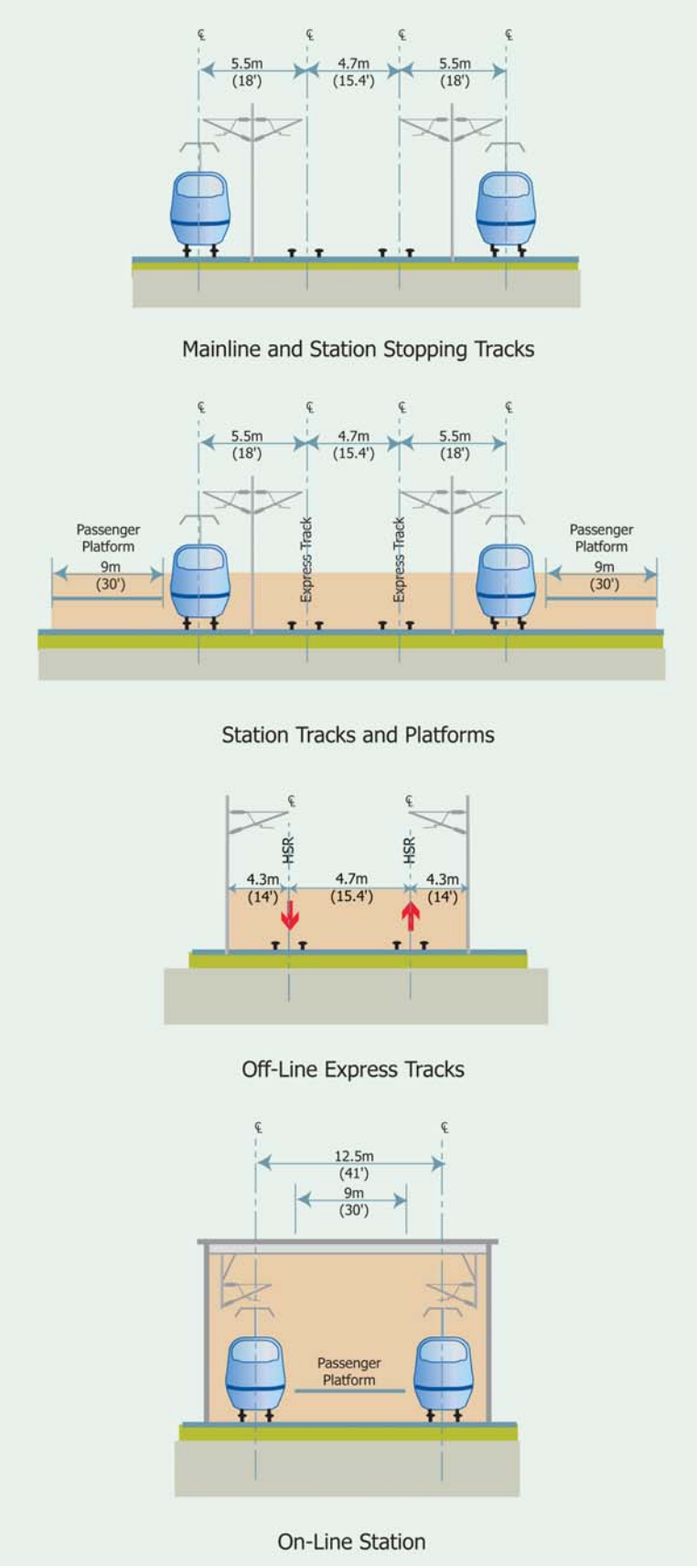
Development of a high speed rail station in the downtown area would have a major impact on development opportunities near the station site. It would also require the provision of a large amount of parking near the high speed rail station.

OPTIONS

There appear to be four basic options for rail services. First neither the freight rail consolidation nor the high speed rail plans are achieved. Second, the BNSF consolidation onto UPRR right of way occurs. Third, high speed rail occurs without the consolidation of freight rail services. Fourth, both the high speed rail and freight railroad consolidation occur.

Scenario 1 - No Consolidation or HSR Possible Improvement Issues

- No horn rule improvements
- Swap Mono and Kern for Inyo Street UPRR crossing
- Selective BNSF grade separations
- Selective UPRR grade separations
- Relocate Amtrak service to UPRR



Source: California High Speed Rail Authority

Figure 2-2
HIGH SPEED RAIL
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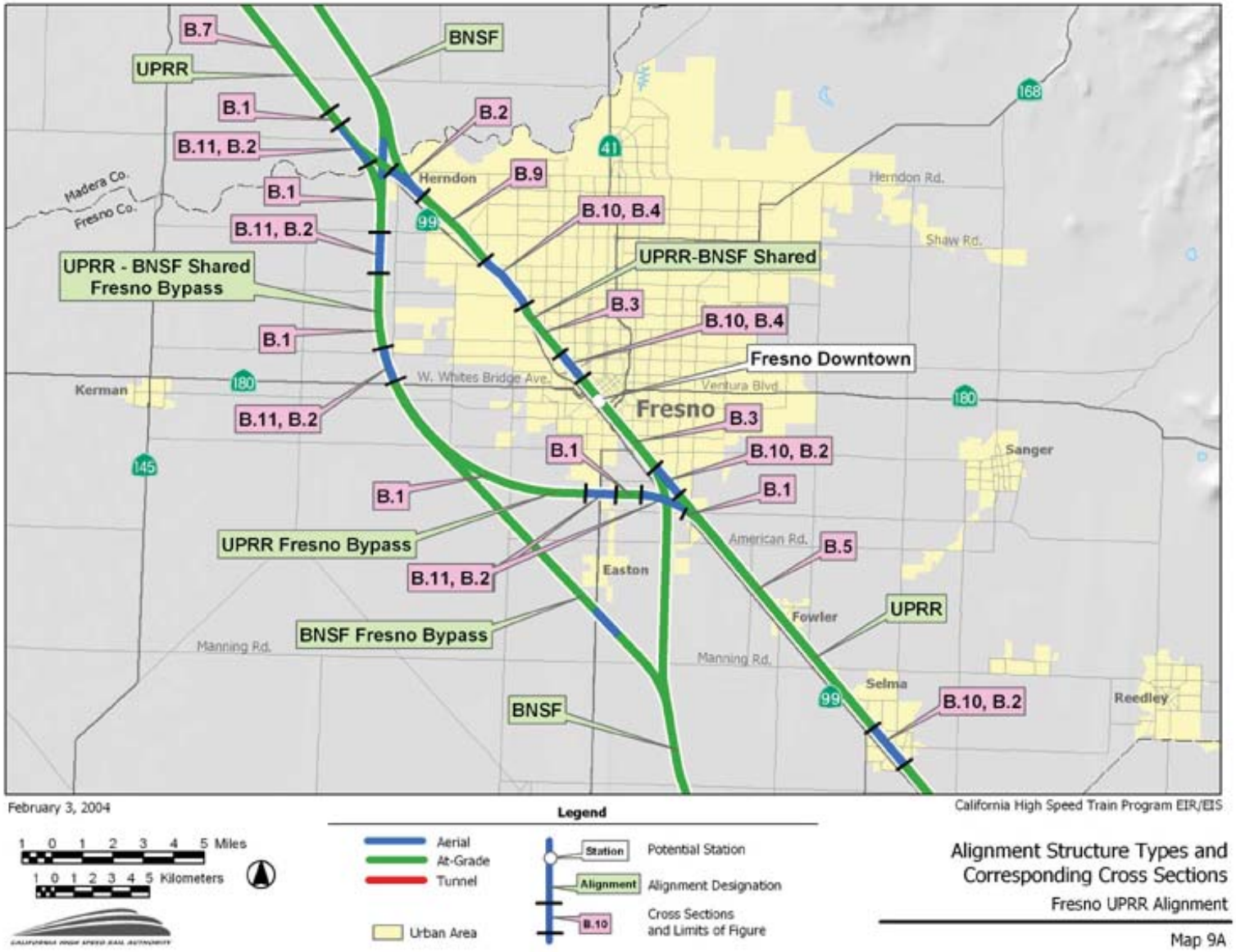

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Source: California High Speed Rail Authority

Figure 2-3
HIGH SPEED RAIL BYPASS MAP
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Scenario 2 - Consolidation without HSR Possible Improvement Issues

- How best to use BNSF r/w
- Restore ped/bike and road linkages
- Sites for relocation of Amtrak station

Scenario 3 - HSR without Consolidation Possible Improvement Issues

- Station site location
- Scenarios for San Joaquin service and relocation to UPRR
- 2 track HSR with all trains stopping
- Patron parking

Scenario 4 - Consolidation with HSR Possible Improvement Issues

- Adjacent vs stacked tracks
- Strategies to minimize barrier effect
- Push all freight to the west and use downtown tracks only for HSR
- Station parking

RECOMMENDATIONS

What seems clear is that these unknowns must be dealt with as important "what ifs" and the city needs to communicate to the California High Speed Rail Authority its position regarding a downtown station and its integration into the downtown transportation network. Might the high speed rail effort also provide the funding for relocating freight operations to the west side of downtown? If so, it is important to protect right of way for this option and alert the community of this vision.

What is strongly suggested by these major unknowns is that the Chinatown Area redevelopment efforts be deferred until the right of way needs are better defined. This will also protect the opportunity to design the development in this area to maximize its potential benefit from the high speed rail station location.

As it is unlikely that either the rail consolidation or high speed rail projects will be fully implemented before 2020, benefits associated with the establishment of a horn quiet zone for the downtown area and benefits associated with grade separation of key crossings should be explored. Essentially is it feasible to establish quiet zones along the BNSF and UPRR lines? What would be involved in establishing a quiet zone and how much would it cost? Which current at grade crossings are physically feasible to grade separate and how might these investments relate to long term high speed rail and rail consolidation plans? Also which crossing would be the highest priority to grade separate?

CHAPTER 3 – TRAFFIC ISSUES AND OPTIONS

Convenience traffic access and circulation is critically important to livability and the economic success of downtown businesses. In addition to accommodating private vehicle traffic the street system also functions as the support framework for bus services, bicycle travel and pedestrian movement in the downtown area.

The Central Area Community Plan's concept for traffic circulation in the downtown area is shown in Figure 3-1. This concept envisioned one-way streets as a way of facilitating downtown traffic movement after the closure of Fulton Street and its conversion into a pedestrian mall. Four of the one way traffic couplets remain from this plan:

1. Stanislaus Street and Tuolumne Street
2. Blackstone/Abby Street
3. North Fulton Street and Van Ness Street
4. P Street and M Street

The one way couplet of Van Ness Street and Broadway, however, has been replaced with a two way Van Ness Street. In the core area of downtown Broadway has essentially been converted into short discontinuous streets between Tuolumne Street and Ventura Avenue. Figure 3-2 describes the 1989 circulation plan around the Fulton Mall. The Broadway "diagonals" have been eliminated from the envisioned circulation network.

CURRENT SETTING

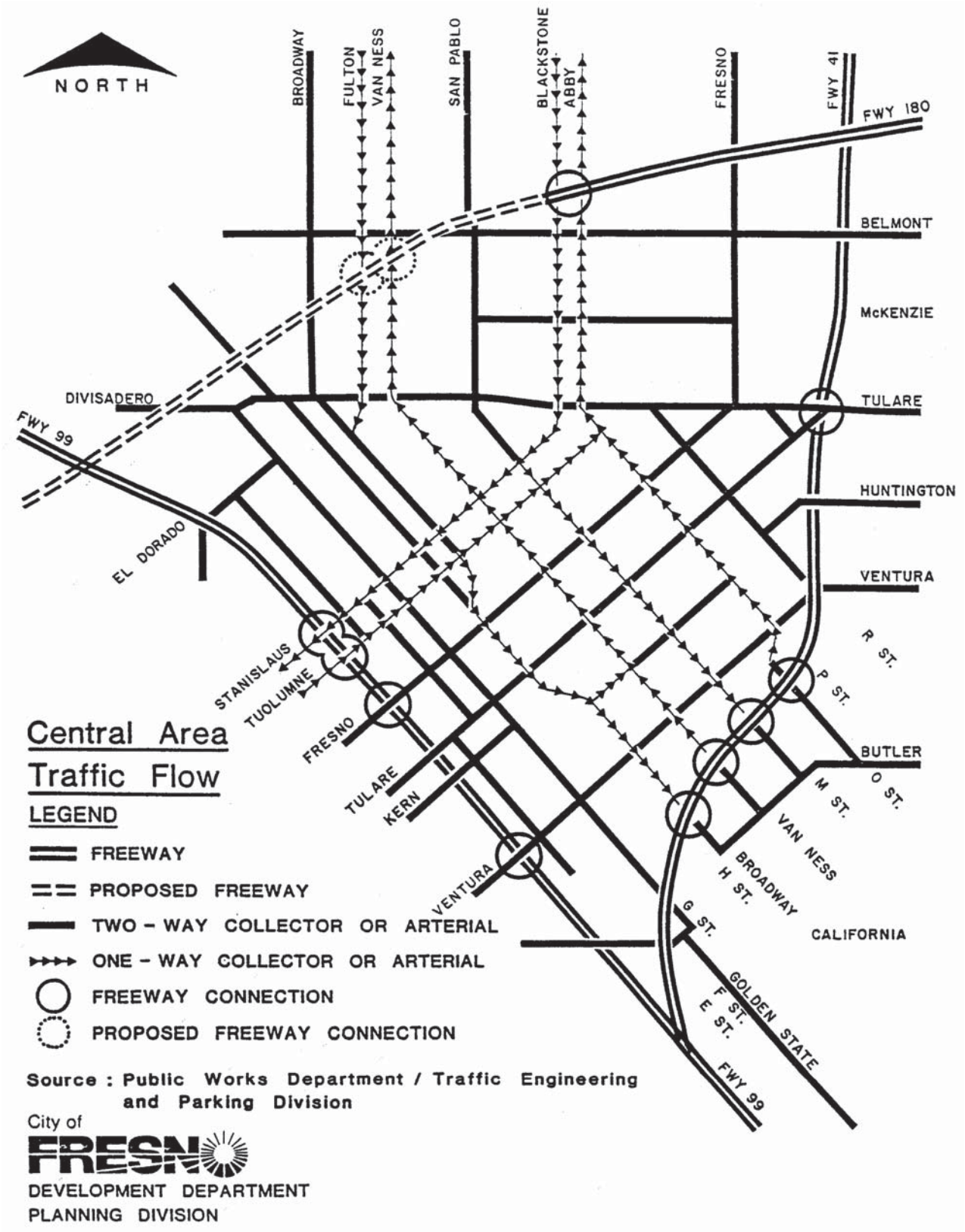
The current traffic network is not user friendly and suffers from a number of network and local intersection deficiencies. Because traffic volumes are modest, the street system is currently not congested. Current features and weaknesses in the downtown traffic facilities include:

Network Features

- Awkward interface between the original diagonal street grid in the downtown core and the more recent north-south street orientation for the areas adjacent to the core.
- Discontinuities in the street grids due to railroads
- Discontinuities in the street grids due to developments.
- Awkward transitions between the one-way and two-way streets
- Unusual three block separation between P and M one way couplet streets
- Weak street hierarchy downtown
- Ineffective wayfinding system

Intersection Features

- Some major streets do not connect
- Broadway Diagonal elimination has not been completed and confuses
- Divisadero intersections are confusing
- Street signage is weak



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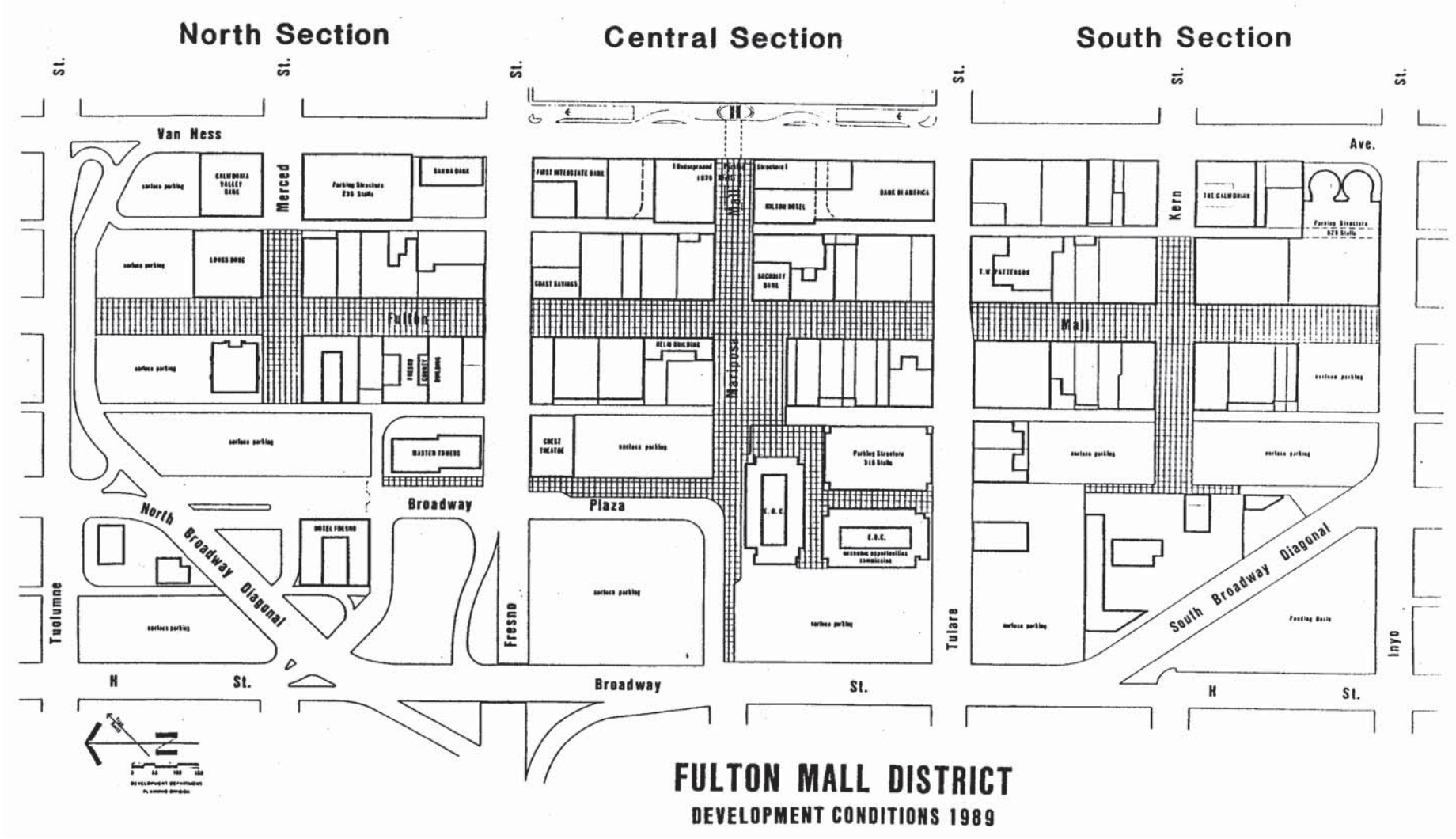
Source: Central Area Community Plan

Figure 3-1
CENTRAL AREA TRAFFIC FLOW
100576/BASE - 12/19/06



Source: City of Fresno

Figure 3-2
FULTON MALL CIRCULATION PLAN 1989

Street Grid Interfaces - Along the seams where the differently oriented grid street networks interface (primarily along Divisadero), it is unclear what traffic lanes to use. It is very easy for motorists to become disoriented and lost. The SR-41 interchange at Tulare Avenue and Divisadero is particularly confusing.

Railroad Barriers - The BNSF railroad corridor limits the number of street crossings and train movements create delays for buses and cars. Except for the two freeway over-crossings, all six of the streets that cross the BNSF are at grade. A pedestrian only at-grade crossing exists at City Hall. These at-grade crossings pose accident risks, delay traffic and increase train noise (horns). Of the ten crossings of the UPRR tracks, five are at-grade, the Fresno Street crossing underpasses the tracks and crossings at Stanislaus, Tuolumne, SR-180 and SR-41 overpass the rail tracks. At–grade crossings at located at Ventura Avenue, Mono Street, Kern Street, Tulare Street and Divisadero.

Development Related Barriers - The grid street system has been disrupted by several developments. The Community Regional Medical Center has truncated Divisadero. No signage is provided to guide motorist from one side of Divisadero to the other side. The Cesar Chavez Adult Education Center has truncated O Street. The convention center complex has blocked Mono Street. The Mall has closed Fulton Street. The IRS complex has blocked Broadway's connection to Fresno Street. Kern Street has been closed for the pedestrian path between O Street and M Street. Proposals have been tabled for several other closures. These discontinuities in the street grid tend to confuse motorists and increase turning movements. Traffic turning movements adversely impact system capacity, increase traffic delays, increase accident risks and increase conflicts with pedestrians. Street closures have resulted in a wide gap between Van Ness and H Street where there no longer are parallel streets (Fulton and Broadway both closed). Figure 3.3 shows the key locations where developments have interrupted the street circulation system.

One-way Streets Transitions - One-way street systems maximize traffic capacity and also minimize traffic stoppings. Increased capacity is achieved by eliminating left turning conflicts. The number of stops is reduced through the ability to more efficiently time traffic lights to provide progression in the one direction traffic is traveling. The most common difficulty with one way streets is where they transition into two way streets. The Fulton to Broadway transition is a case in point.

Atypical One-Way Street Spacings - Most one way street pairs are located one block apart, which tends to minimize out of direction travel as well as to make it simple for motorists to understand the traffic pattern. The P and M Streets one-way couplet is separate by three blocks. With O Street providing some local circulation between the two one way pair streets, the main problem seems to be motorist understanding of the street traffic pattern.

Hierarchy of Streets - It is difficult to distinguish visually which streets in downtown are major traffic carriers and which are local access and circulation streets. The City General Plan street classification system tends to focus on suburban street categories – arterial, collector, scenic drive and super arterial. Typologies for urban downtown streets are not now established.

Wayfinding - With the meshing of the different street grid orientations, the discontinuous street and the mixed use of one-way streets motorist confusion becomes a major design challenge. From a network perspective better signage is needed to major downtown destinations, to the freeway access points and to better inform motorists at atypical intersections. Often the signage only advises which lane is to turn left, go straight or turn right; without advising the destination or the street name for each movement.

Street Disconnections - Because of the distances required to overpass or underpass the UPRR tracks some streets are not directly connected to G and to H Streets. Stanislaus and Tuolumne Streets cross over G and H Streets and require connecting traffic to know this and to make a few extra turns to make the connection. Signage for these connections is no provided. The Fresno Street link to H Street is partial and not effectively signed.

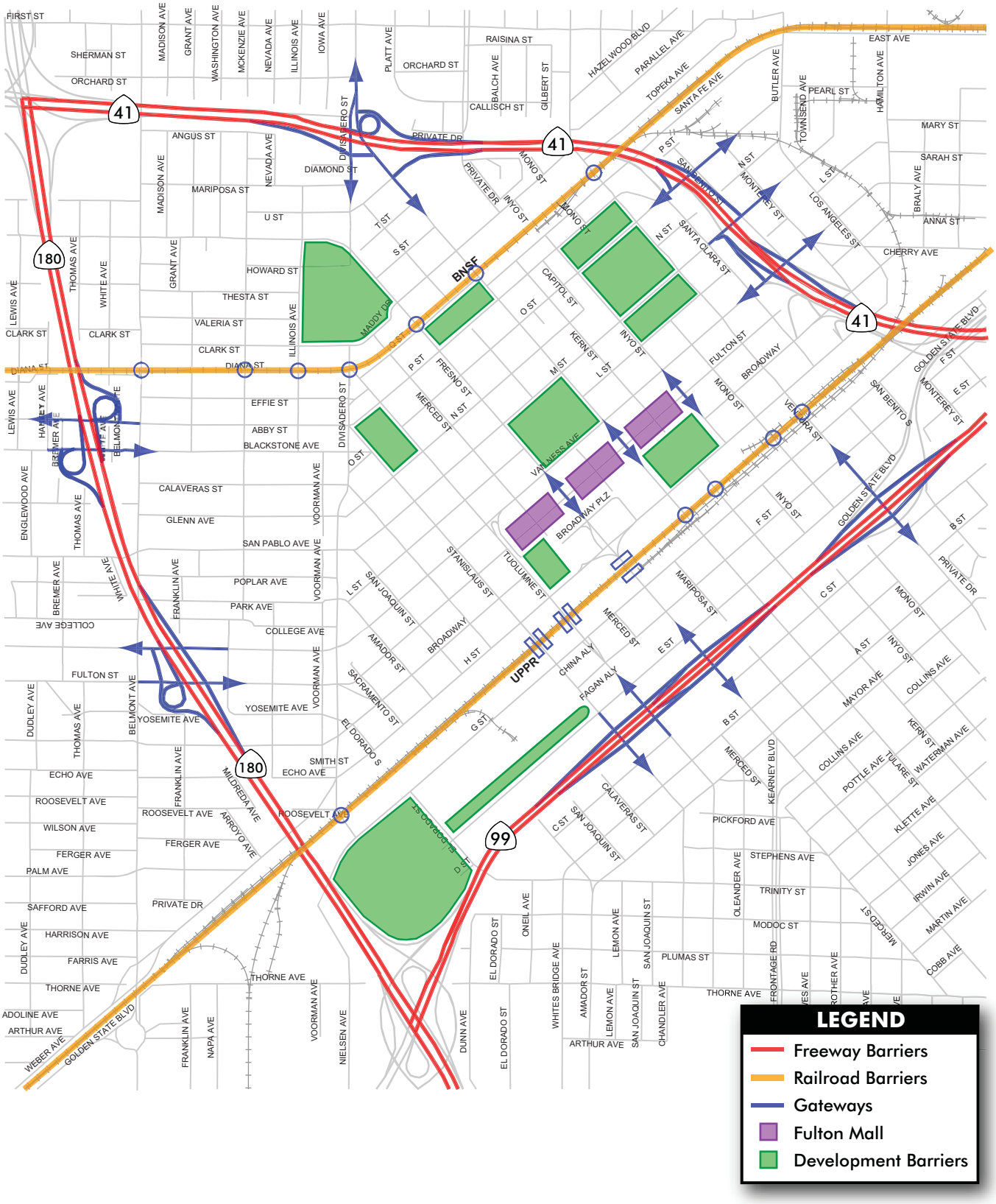


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Figure 3-3
BARRIERS AND GATEWAYS MAP
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Broadway Diagonal - When the IRS complex was developed, the Broadway Diagonal was blocked off but not removed. The remnants of the Diagonal between Broadway and Van Ness Street confuse motorist and are visually blighting. The intersection of Broadway Plaza with Fresno Street is also confusing.

Divisadero Intersections - Divisadero intersections with H Street, North Fulton Street, Maddy Drive, Fresno Street and Tulare Street are all atypical designs, which confuse motorist. The junction of the Blackstone/Abby couplet with O and P Streets and with Stanislaus and Tuolumne Streets at Divisadero is very confusing.

Street Signs - May of the street name signs are very small and are obstructed visually by trees. Unlike suburban intersections, advance signing is very limited.

Figure 3-4 highlights the areas downtown where disorientation and confusion is greatest.

FUTURE ISSUES AND OPTIONS

Review of COG's traffic demand forecast indicates that the total number of daily trips beginning or ending in downtown is projected to increase from 328,000 in 2006 to 482,000 in 2030 (47% increase). No increase is envisioned in the freeway access interchange or local street capacity. Thus, the near fifty percent increase will need to be accommodated on the current street system. A review of the downtown distribution of locations by planning districts where traffic is currently and is project is presented in Table 3-1. The Mall District is shown to be one of the least growth planning districts. Cordon daily traffic volumes are projected to increase 61 percent between 2006 and 2030 with the greatest increase anticipated for the Sr-99 and SR-180 cordons. Review of the forecast daily volumes for freeway ramps serving the downtown identified only a few freeway ramps projected to serve more than 1,000 vehicle trips. These high volume ramps are SR-99's Fresno Street northbound off ramp and southbound on ramp, SR-41's southbound off ramp at Van Ness Street and SR-41's Tulare street northbound on ramp and southbound off ramp. Some localized congestion might be expected near these ramps during peak commute hours and peak event traffic periods. COG's traffic forecast show a 61 percent increase in traffic within the region. In essence, traffic growth in the region is forecast to be 50 percent higher than traffic growth downtown. The greatest freeway traffic problems will likely be on the freeways themselves, rather than the interchange ramps.

The only committed changes to the transportation system are understood to be reconfiguration of the SR-41 freeway ramps and the closure of Mariposa Street between N and O Streets for a pedestrian mall (Eaton Plaza). As discussed in Chapter 2, consolidation of rail services and the implementation of high speed rail service would require grade separation or closure of at grade crossings along the UPRR corridor. Some discussion has also occurred re closure of G Street at Kern Street as part of the Chinatown redevelopment project. Lastly, as part of the Vision 2010 Plan, a loop circulation concept was suggested. (Figure 3-5)

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Figure 3-4
CONFUSION SPOTS
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Fresno Trip Generation Summary 2006 vs 2030

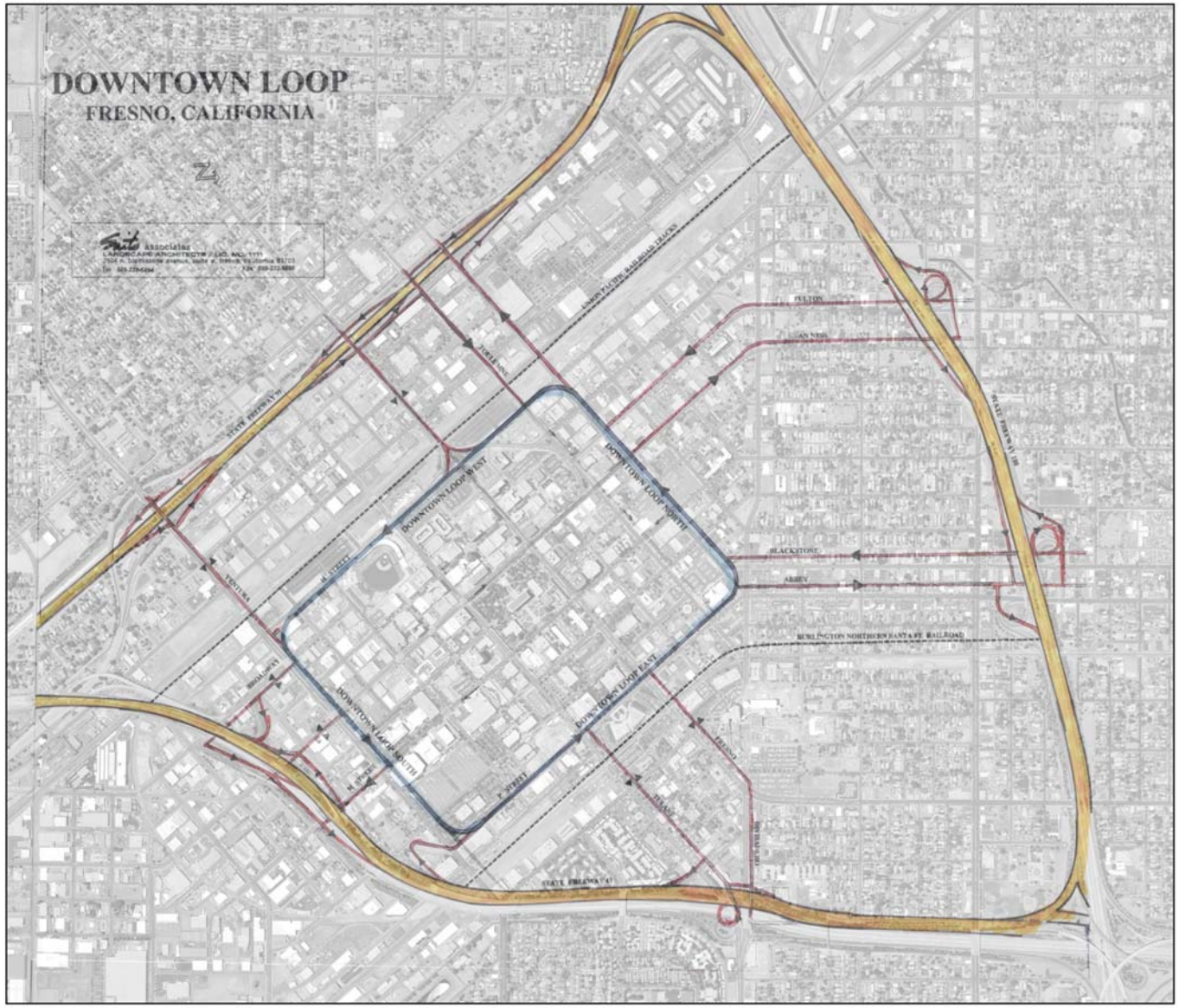
Planning Area (Districts)	2006	2030	growth delta	growth percent	2006 %total	2030 %total
Industrial North	32,861	46,796	13,935	142%	7%	7%
Chinatown	22,301	28,885	6,584	130%	5%	4%
Industrial South	7,256	12,486	5,230	172%	2%	2%
Subtotal	62,418	88,167	25,749	141%	14%	13%
Fulton Mall	69,462	94,901	25,439	137%	15%	14%
Convention Center	17,810	24,120	6,310	135%	4%	4%
Warehouse Row	8,561	9,924	1,363	116%	2%	1%
Government Center	94,378	147,788	53,410	157%	21%	22%
Subtotal	190,211	276,733	86,522	145%	42%	42%
Armenian Town	12,409	20,494	8,085	165%	3%	3%
Cultural & Arts	34,972	57,702	22,730	165%	8%	9%
Subtotal	47,381	78,196	30,815	165%	10%	12%
Lowell	37,908	55,881	17,973	147%	8%	8%
Blackstonr Abbey Business	14,194	15,669	1,475	110%	3%	2%
Community Hospital	76,063	113,605	37,542	149%	17%	17%
Jefferson	23,711	36,943	13,232	156%	5%	6%
Subtotal	151,876	222,098	70,222	146%	34%	33%
TOTAL	451,886	665,194	213,308	147%	100%	100%

Table 3-1

ISSUES AND OPTIONS

There are a number of changes that might be made to the downtown circulation system.

- Mend the current network, improving connections, simplifying intersections and strengthening wayfinding.
- Implement the vision 2010 Loop Road concept
- Convert M and P Streets to two way traffic operations
- Reconvert Van Ness Street to one way flow and develop H Street as its one-way couplet pair.
- De-emphasize Divisadero to simplify the seam between grids.
- Selective grade separate railroad crossings
- Reconnect N Street between Inyo and Ventura.
- Strengthen the N Fulton link to H Street.
- Establish a street hierarchy.



Source: City of Fresno

Figure 3-5
PLANNED DOWNTOWN TRAFFIC CIRCULATION LOOP

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RECOMMENDATIONS

1. Since the major problems with the current circulation pattern relate to "corrupted" intersections and network transitions, absence of an understandable hierarchy of street types for users and signage; attention is definitely needs to solve these problems.
2. A pros and cons discussion of the 2010 Vision Loop Concept seems needed to address this formally developed circulation scheme. (Figure 3-5)
3. Opportunities to grade separate railroad crossings seems appropriate.
4. Improvement to traffic wayfinding offers low cost benefits.
5. More detailed investigation of the one-way versus two-way traffic operations does not appear to offer promise.

CHAPTER 4 – PUBLIC TRANSIT ISSUES AND OPTIONS

All of the background downtown planning efforts envisioned an expanded role for public transit. Public transit in a downtown setting has three traditional roles. It serves as the gateway into the region for regional trips. Public transit also provides assess into the downtown from other parts of the city. Lastly, public transit provides for circulation within the downtown and help to minimize the use of private cars for these short distance trips. Public transit needs to be integrated with pedestrian, parking and other transportation policies and facilities and it needs to be coordinated with land uses to maximize its full potential.

CURRENT SETTING

The Fresno Area Express (FAX) serves the highest number of public transit trips in the region and in downtown. Greyhound provides intercity bus service form its base on H Street near Tulare Street. Also as noted in Chapter 2, Amtrak's San Joaquin passenger rail service stops in Downtown at its station near City Hall. Other public transit services include: Fresno County Rural Transit agency's Southeast and Westside bus routes. The Southeast bus route links downtown with Kingsburg, Selma and Fowler. The Westside bus route links downtown with Firebaugh, Mendota and Kerman.

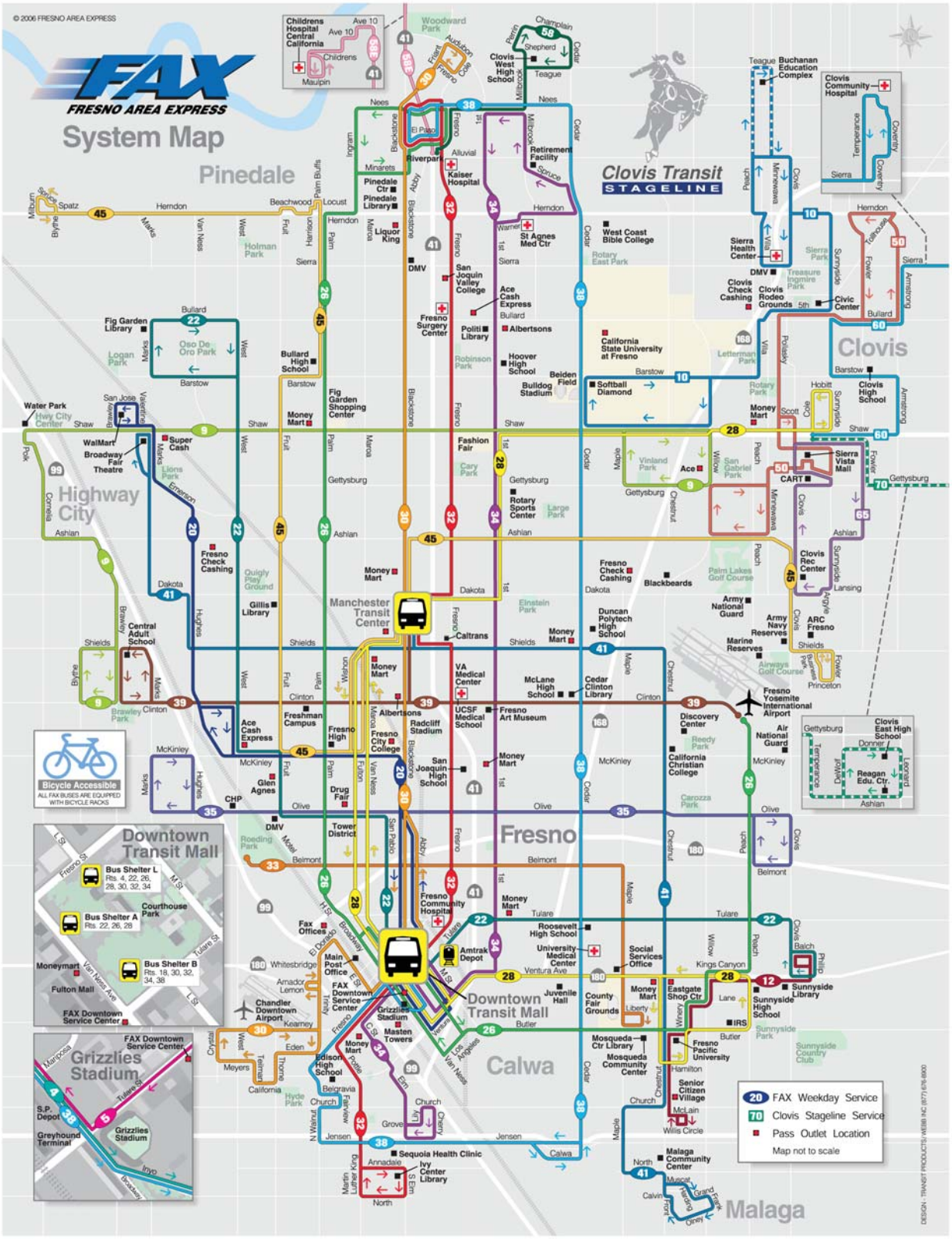
Network - FAX network of bus routes is shown in Figure 4-1. Of FAX's total of 20 routes, 12 serve downtown. One of the 12 downtown FAX bus routes is a cross-town (Belmont Avenue) and does not serve the downtown transit center. Another of the 12 downtown bus routes (Route 4) is a shuttle loop route and also does not link with the transit center. The structure of its route network is grid-like which simplifies passenger understanding of the service and tends to maximize opportunities to transfer between bus routes. Many communities operate this type of bus route network. What is unusual about the Fresno bus network is that the downtown is not near its center. As development has continued to spread northward, the downtown hub for transit has increasingly been pushed to the edge of the service network.

FAX buses serve 16 of the 24 gateway paths into/out of downtown. The only gateway paths not served by FAX are: Broadway (north and south gateways), Huntington Boulevard, O Street, H Street (south) Golden State Boulevard, and the Highway 99 crossings at Ventura Avenue, Tulare Street, Tuolumne Street, and El Dorado. All of the FAX routes to West Fresno enter and leave downtown via Fresno Street.

Service - FAX bus service operates seven days a week from generally 6 am to 10 pm. On weekdays service frequencies on the bus routes is generally 30 minutes, with buses on routes 28 and 30 operating on 15 minute headways. Uniform headways make it easier for passengers to remember the schedules and it also facilitate coordinating schedule pulses for bus routes so as to allow passengers to transfer between lines. On weekends the service frequencies for routes 28 and 30 increase to 30 minutes and the headways for routes 20, 22 and 26 increase to between 45 and 60 minutes.

Railroad Conflicts - At grade railroad crossings adversely impact FAX's ability to operate reliably on schedule. One of the reasons why all FAX buses cross the UPRR tracks at Fresno Street to/from West Fresno is to avoid delay and safety risk at the Ventura Avenue and Tulare Street at grade crossing points. None of the BNSF crossings are grade separated, so all buses that cross the BNSF can be delayed by trains. Route 26 crosses the BNSF at Butler Avenue, Routes 28 and 34 cross at Ventura Avenue, Route 22 crosses at Tulare Street and cross-town Route 33 crosses at Belmont Avenue.

Circulator - FAX operates two local circulators downtown, The Midday Trolley and Route 4 (Figure 4-2). Functionally the keys to successful circulators are frequent service, convenient access and reliability. Speed for short distance trips tends not to be very important.



Source: City of Fresno

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Figure 4-1
SYSTEM MAP
100576/BASE - 12/19/06

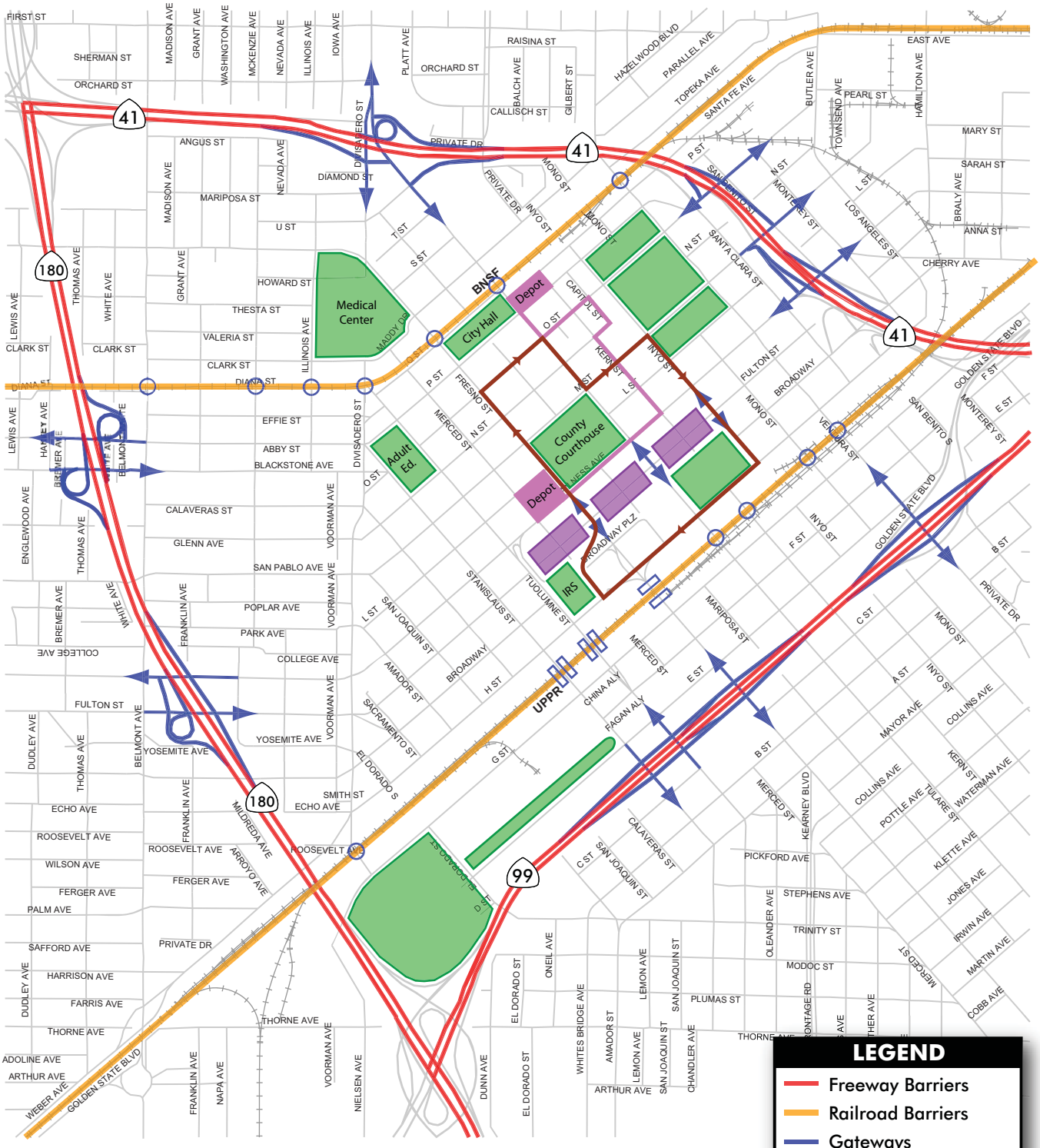

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Figure 4-2
BARRIERS AND GATEWAYS MAP
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The Midday Trolley is a free fare ten minute frequency service that operates only during the weekday lunch hours. Its length is constrained by vehicle and cost resources. Many of the potential trips served by this short route are walk-able. The other local circulator is Route 4, which is a large one way clockwise loop route (Fresno Street, O Street, Inyo Street, and H Street). Route 4 also operates on ten minute headways, but it operates from 6:30 am to 6:15 pm on weekdays. Neither of these two routes directly link the IRS and Medical Center employment centers with the downtown retail areas. Route 4 requires payment of FAX's $1 regular fares. One dollar fares for these short distance trips is relative high and a disincentive for usage.

As background Figure 4-3 describes where streetcars historically ran.

Downtown Hub – FAX's downtown service operates from its Courthouse Square transit center. The transit center consists of three discrete shelter areas, Shelter L on Fresno Street and Shelters A and B on Van Ness Street. Figure 4-4 describes its layout and which buses are assigned to each of the three shelter stops. In general bus routes are assigned to the shelters based upon their direction of travel. For example all of the buses bound for West Fresno are assigned to Shelter A. The one way street pattern, discontinuities in the street network further increase the number of turns buses need to make in the downtown area. Buses can only access the three shelters in one direction of travel which requires some buses to make several turns to approach and depart the shelters.

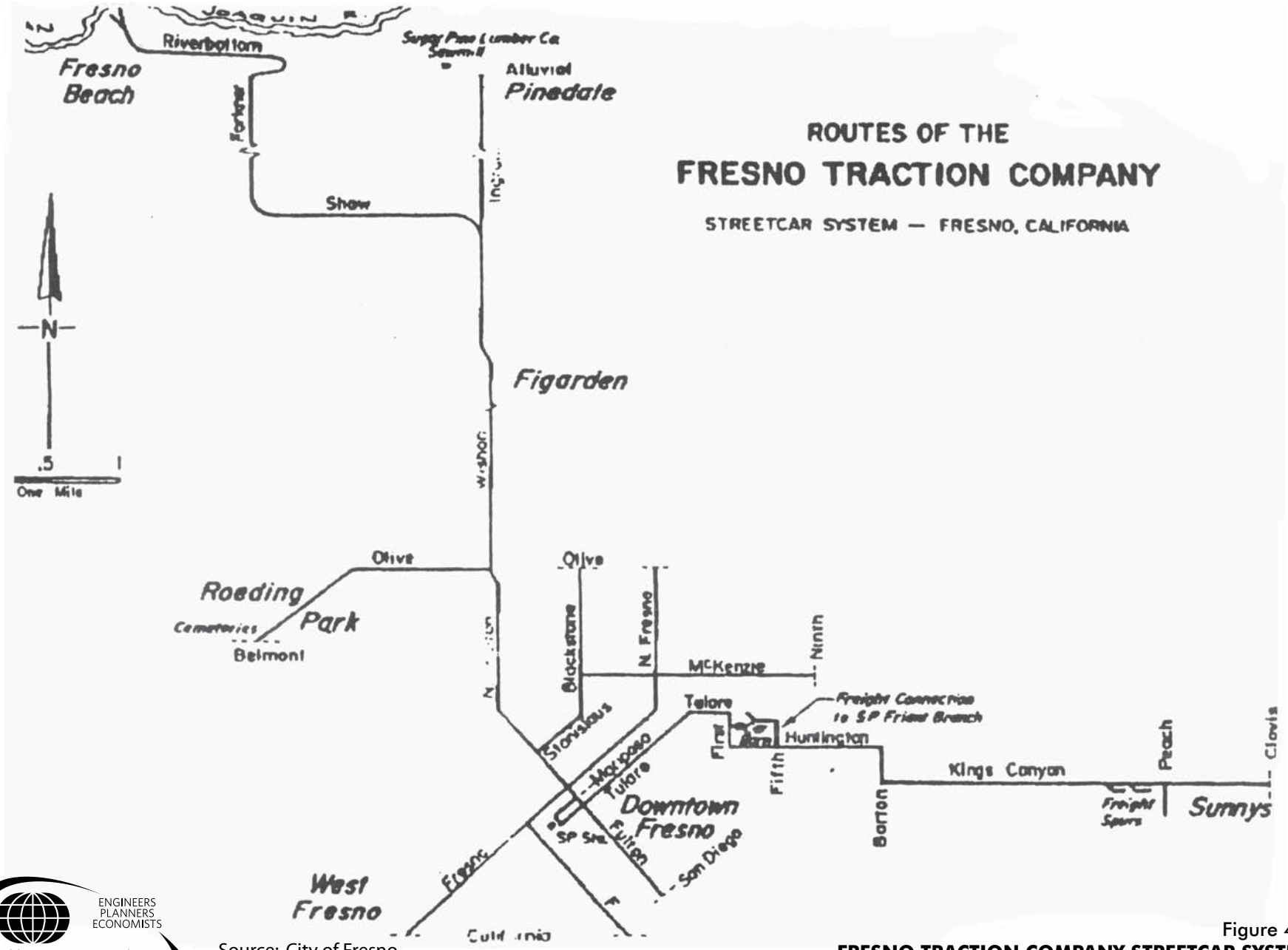
The fragmented 3 shelter design of the current transit center is confusing to passengers and impairs efficient transfer movements. Desirably a passenger transfer center should minimize transfer walking distances/times and concentrate the area for security and line of sight passenger wayfinding to their transfer bus. The three shelter design does not accomplish these basic design objectives. FAX's schedule pulse has buses stopping at the downtown transit center a maximum of five minutes. As three minutes late is considered allowable schedule adherence, often buses are only stopped for two minutes at the transit center. Bus delays at-grade railroad crossings complicate even the three minute normal tolerance for schedule reliability. Within the two to five minute coordinate dwelltime for buses, passengers must deboard, walk and board their transfer bus. It requires more than two minutes to simply walk from Shelter B to Shelter L. Most of these transfer passengers therefore will miss their transfer bus. The transfer walk connections are not well lighted and raise security concerns during evening hours. The longer walks are also a greater problem during rainy weather.

Review of FAX's published schedule reveals that, full pulsed operations are not scheduled. Figure 4-5 shows the scheduled bus arrival times for each shelter for a weekday between (7:55 am) and (9:55 am). The maximum number of buses scheduled to be present at any one time during this two hour period are four for Shelter L, three for Shelter A and three for Shelter B. The maximum total for all three shelters is eight buses over this two hour period.

The fragmented transit center design also complicates wayfinding for passengers. This is particularly problematic for transfer buses that must quickly get to their next bus.

Another weakness of the current transit center is that pedestrian access to it is poor. The parking garage ramps separate pedestrians from the security of street frontage visibility.

One positive regarding the current transit center location is that it is centrally located within the downtown core area. Almost all of the major destinations downtown are within five blocks from the transit center. The regional medical center is one of the few destinations that is not located within a short walk of the transit center. Both Van Ness and Fresno Street also run continuously through the downtown area and help to minimize bus turning movements.



Source: City of Fresno

Figure 4-3
FRESNO TRACTION COMPANY STREETCAR SYSTEM

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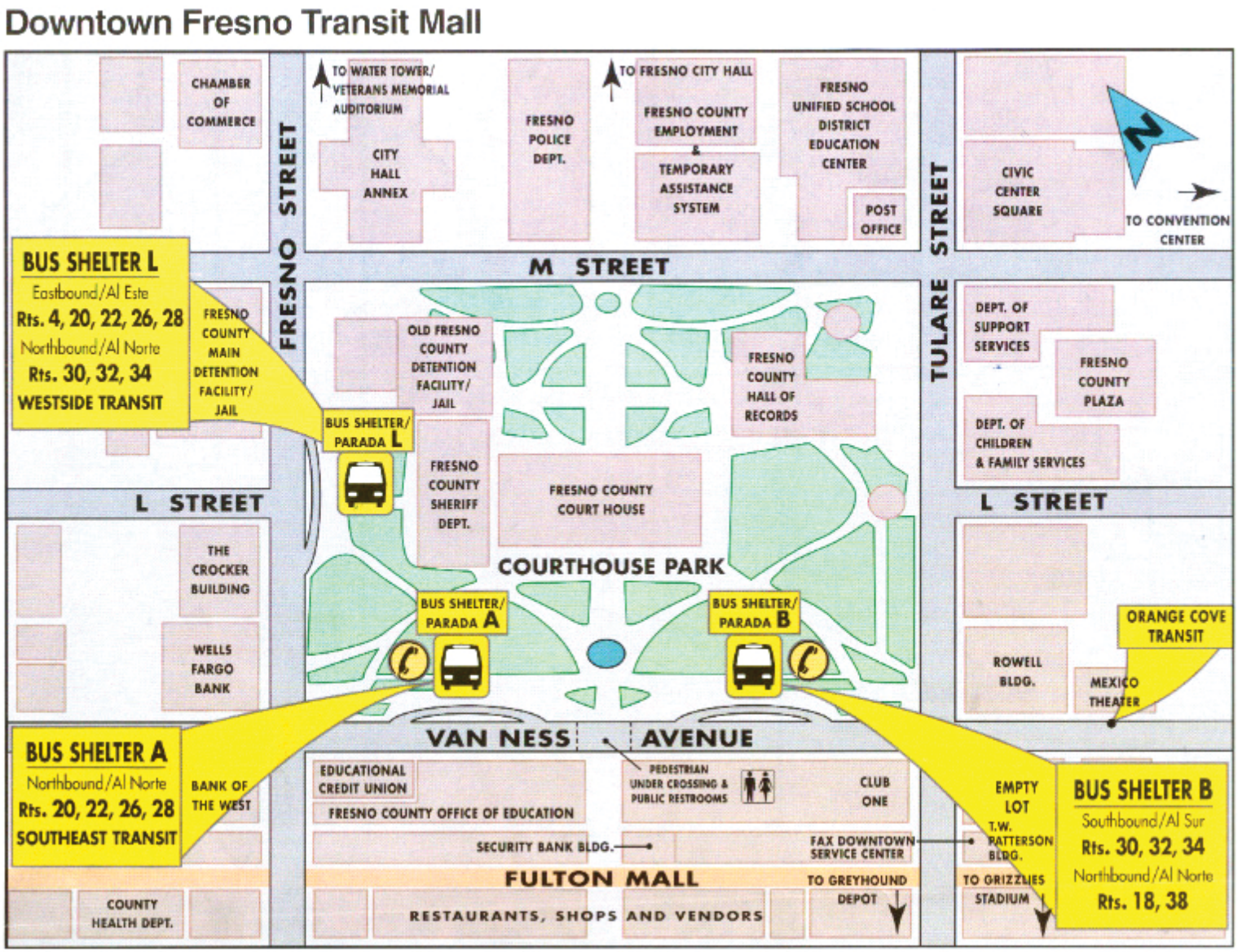

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Source: City of Fresno

Figure 4-4
DOWNTOWN HUB - BUS SHELTERS
100576/BASE - 12/19/06

FRESNO DOWNTOWN TRANSIT CENTER OPERATIONS

BUS ARRIVAL TIMES AT THE DOWNTOWN TRANSIT CENTER 7:55 to 9:55am (minutes after the hour)

	55	0	5	10	15	20	25	30	35	40	45	50	55	0	5	10	15	20	25	30	35	40	45	50	Total
SHELTER L																									
Route 4 DT Circulator	■		■		■		■		■		■		■		■		■		■		■		■		12
Route 20 Hughes (depart)						■						■						■						■	4
Route 22 E. Tulare				■						■						■						■			4
Route 26 Peach Ave						■						■						■						■	4
Route 28 Ventura		■			■			■			■			■			■			■			■		8
Route 30 Pinedale	■			■			■			■			■			■			■			■			8
Route 32 N. Fresno				■						■						■						■			4
Route 34 NE Fresno				■						■						■						■			4
Westside Transit					■																				1
Subtotal L buses	2	1	1	4	3	2	2	1	1	4	2	2	2	1	1	4	2	2	2	1	1	4	2	2	49
SHELTER A																									
Route 20 Hughes (arrive)	■						■						■						■						4
Route 22 West Ave.				■						■						■						■			4
Route 26 Palm				■						■						■						■			4
Route 28 CSUF	■			■			■			■			■			■			■			■			8
Southeast Transit																	■								1
Subtotal A buses	2	0	0	3	0	0	2	0	0	3	0	0	2	0	0	3	1	0	2	0	0	3	0	0	21
SHELTER B																									
Route 30 W. Fresno		■			■			■			■			■			■			■			■		8
Route 32 West Fresno		■						■						■						■					4
Soute 34 West Fresno		■						■						■						■					4
Route 38 N. Cedar				■						■						■						■			4
Subtotal B buses	0	3	0	1	1	0	0	3	0	1	1	0	0	3	0	1	1	0	0	3	0	1	1	0	20
TOTAL STOPS	4	4	1	8	4	2	4	4	1	8	3	2	4	4	1	8	4	2	4	4	1	8	3	2	90
5 minute dwelltimes																									

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Figure 4-5
DOWNTOWN TRANSIT CENTER OPERATIONS

FUTURE ISSUES AND OPTIONS

Capacity - During weekday commute peak hours, FAX currently operates 38 peak direction buses per hour to/from the Downtown Transit Center. This translates to about 1,700- passenger per hour capacity, based on a load of 45 passengers per bus. Forecast daily travel generated by downtown land uses is for a 47 percent increase between 2006 and 2030, based on planned development. Trip generation is forecast to increase from 318,000 daily person-trips today to 468,000 daily person trips in 2030. This would suggest that transit capacity would need to increase by 50 percent. Some of today's current capacity is unused and might be available to accommodate some of the projected demand increase. It is also true that as development density in the downtown area increases that a high proportion of trips will be made via public transit. Increased capacity could come in a variety of forms. It could be provided by increases the frequency of service on existing bus routes and or deploying larger buses (articulated buses). It might also be provided by introducing new bus routes.

High Capacity Transit – Long range planning has identified three potentials corridors for some form of bus rapid transit or light rail transit. These are the Ventura Corridor, the Blackstone Abby Corridor and the Cedar Corridor. The Cedar Corridor could be a branch of the Ventura Corridor. Implementation of any of these high capacity transit projects would have traffic and downtown terminus implications. Another issue would be the decision to interline BRT services in the downtown area and thereby minimize bus turn a round parking in the central area. The BNSF at-grade crossing with Ventura Avenue also would become an increasing problem.

The most recent long range transit planning efforts have not identified the BNSF corridor as a potential future high capacity BRT or light rail transit corridor. If the BNSF trains are relocated to the UPRR corridor, the future use of this right of way corridor becomes an issue. It is understood that many residents want to see the corridor used for a multipurpose trail and not for transit use.

Downtown Circulator – The Central Area Community Plan suggested establishment of a downtown circulator system. It outlined four short one direction loop route within the downtown area. The circulator function essentially is to connect trip destination that are longer than accepted threshold distances for walking within the downtown area. This basic function can be provided either as a separate system or as part of FAX's normal service. As separate function it has its own distinct route, normally distinct vehicles and free or low cost fares. Sometimes it is also possible to restructure regular bus services to provide all the circulator linkages and along with a free fare ride zones provide a de facto circulator function. Lastly, a "horizontal elevator" type frequent shuttle (similar to Denver's bus mall) can link different areas of downtown.

The circulator function can be provided using low floor buses, clean fuel and even battery buses (similar to Santa Barbara), replica trolleys, historic streetcars and a wide variety of other modes.

Downtown Transit Center – The downtown transit center provides a number of functions. For passengers the centralized location provides a comfortable, secure place to transfer between lines and due to its central location it also provides a convenient place to start and end trips to downtown. No transfers are needed for most trips to the downtown area. For the bus operator it simplifies operations.

The 2001 Long Range Transit Plan suggests that relocating the downtown transit center to M Street might be beneficial.

The first question is what the desired role is for a transit center downtown and the second question where should it be located. Is it desirable for 15 buses to converge at the same time at the transit center (simultaneous pulse)? Do all the passenger transfers need to occur at one location? Can a horizontal elevator like the Denver Bus Mall improve passenger service or would it complicate use of FAX service? How do the unknowns regarding Amtrak's future HSR station influence downtown transit center location decisions? What might be done to upgrade the current courthouse facilities?

ITS Issues – Intelligent transportation systems can help improve public transit services in a wide variety of ways. They can provide buses priorities at traffic signals and they can advice passengers of the actual arrival times for their buses at each major bus stop. The GPS systems used for the real time passenger information systems can also allow transit systems to better manage and supervise their service. The most controversial applications of ITS tend to be traffic signal priority treatments.

RECOMMENDATIONS

1. A target mode share should be defined to guide multimodal policy and facility planning. What should this target be and how much future transit capacity would be needed to achieve it?
2. Identify routing and operating policies to improve the effectiveness of the downtown circulator. Also what modes would be most appropriate?
3. Identify possible upgrades to the current downtown transfer center
4. Identify alternate locations and concepts for the downtown transfer center
5. Identify traffic preferential treatments

Chapter 5 – Parking Issues and Options

Parking is an essential element to both economic and livability objectives. To many cities, the provision of convenient free parking is seen as essential to support downtown retail, attract office employment downtown and attract residential development downtown. However, too much parking and poorly designed parking facilities most often lead to unattractive places to live, work, shop and visit. It should be noted that parking needs and conditions ought to be considered for both the downtown as a whole and for sub-areas within the downtown. In practice, people rarely want to walk more than a few blocks from their parking spot to their destination, but they are often willing to walk for longer distances if the environment is designed with pedestrian amenities such as generous sidewalks and crosswalks, street furniture and landscaping. It is also important to recognize the many differences between residential parking needs and parking needs associated with other land uses.

CURRENT SETTING

Current plans and data were reviewed to define the existing policies, demand and utilization features for parking in the downtown area.

Parking Development Requirements and Policies
Several documents were evaluated to assess the parking and development requirements and policies for the City of Fresno. These included the 2025 General Plan, the Central Area Community Plan and the Fresno Municipal Code. The parking related policies in the 2025 General Plan provide limited guidance with potential for broad interpretation given the proper enforcement framework. These include:

- Activity Centers (C4d): Activity centers should provide for mixed uses and shared parking facilities.
- Mixed Uses (C8f):.Mixed use zoning regulations should allow for flexibility in parking requirements.
- Parking (E9x): Evaluate a maximum parking requirement, and reduction schedule for viable transit corridors

The intention of these policies is to support mixed use business district, while prioritizing transit use. However they appear to lack the accompanying/parallel enforcement mechanisms via ordinances in the municipal code via City Council adopted ordinance.

The Central Area Community Plan (CACP) calls for several transportation circulation and parking (TCP) policies and implementation actions with the intent of making the downtown transportation system more "user friendly" and more accessible to alternative modes of transportation. In particular, TCP policy four calls for developing on and off street parking which is adequate, safe and convenient to accommodate the requirements of the activity centers. The relevant implementation actions include:

- Establish a Comprehensive Master Parking Plan and Management Program (TRA 4-1)
- Consolidate the Central Area into one parking district (TRA 4-2)
- Provide incentives to encourage alternatives to driving (i.e. TDM: cash-out, carpool, etc.) (TRA 4-4)
- Encourage development of structures which integrate parking with other uses (i.e. parking garages w/ground floor retail) (TRA 4-5)

Since the CACP was published, none of the TCP-4 implementation actions were carried out even though this document remains the preferred vision for the downtown area. To be effective, the policies would require accompanying/parallel regulatory enforcement mechanisms in the municipal code via City Council adopted ordinance.

Development requirements for parking are outlined in great detail in chapter (12-306) of the municipal code downtown. The main zoning districts and related requirements for the downtown include:[1]

- Civic Center District (C-C): one square foot of parking/one square foot of building space
- Central Trading District (C-4): one square foot of parking/one square foot of building space, except for exempt business districts.[2]
- Commercial and Light Manufacturing (C-M): See C-6, one square foot of parking/one square foot of building space, except for exempt business districts[3]
- Civic Center Area Modifying District (C4-CCO): Special Use District. Use more restrictive of 2 districts, in this case one square foot of parking/one square foot of building space.
- Light Manufacturing District (M-1): See C-6, one square foot of parking/one square foot of building space, except for exempt business districts.[4]

According to the City of Fresno Planning Department there are two parking exempt areas in the downtown, the Central Business Parking Exempt District and the West Fresno Business Exempt District which are indicated in Figure 5-1. As outlined, these areas are not required to provide off-street parking as described in the municipal code chapter 12-306. Other than the exempt area boundaries there have been no details provided from the City regarding the restrictions or requirements for administrating these districts.

Except for the parking exempt areas which are most likely are regulated via the Municipal Code, the parking requirements for land use types in the downtown provide little consideration for actual parking demand. There is no consideration for transit adjacency. The parking exempt ordinance should be clearly outlined to include activity centers, zones of mixed use and transit (and transit adjacent) corridors.

Parking Demand, Supply and Utilization

A parking inventory and utilization study was conducted in downtown Fresno in 2002 by Walker Parking Consultants. Parking occupancy was studied in four distinct sub-areas of the downtown, the Fulton Mall, the Government/Civic Center, the Ballpark and the convention center. Additional parking inventory since the 2002 study includes 1969 spaces in the Convention Center parking garage, Merchants and EFG lots as well as the addition of 457 new parking meters (157 new and 300 replaced from vandalism). The map of downtown parking facilities is shown in Figure 5-2 and the downtown parking inventory is summarized in Table 5-1.

[1] The provisions of the general conditions in Chapter 12-306-I for all of the zoning districts apply.
[2] See Chapter 12-220 of Fresno Municipal Code for detailed exceptions.
[3] See Chapter 12-224 of Fresno Municipal Code for detailed exceptions.
[4] See Chapter 12-226 of Fresno Municipal Code for detailed exceptions.

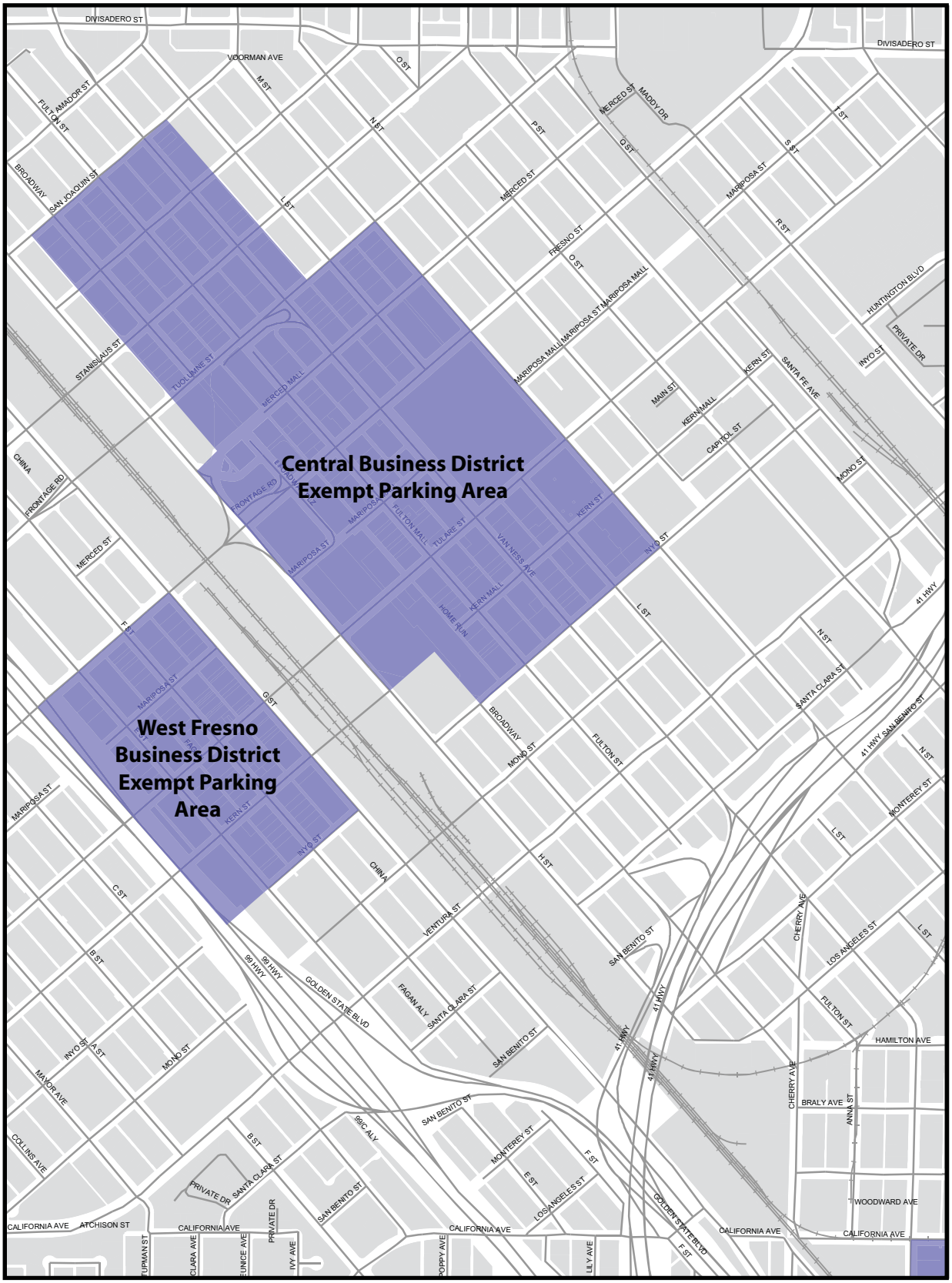

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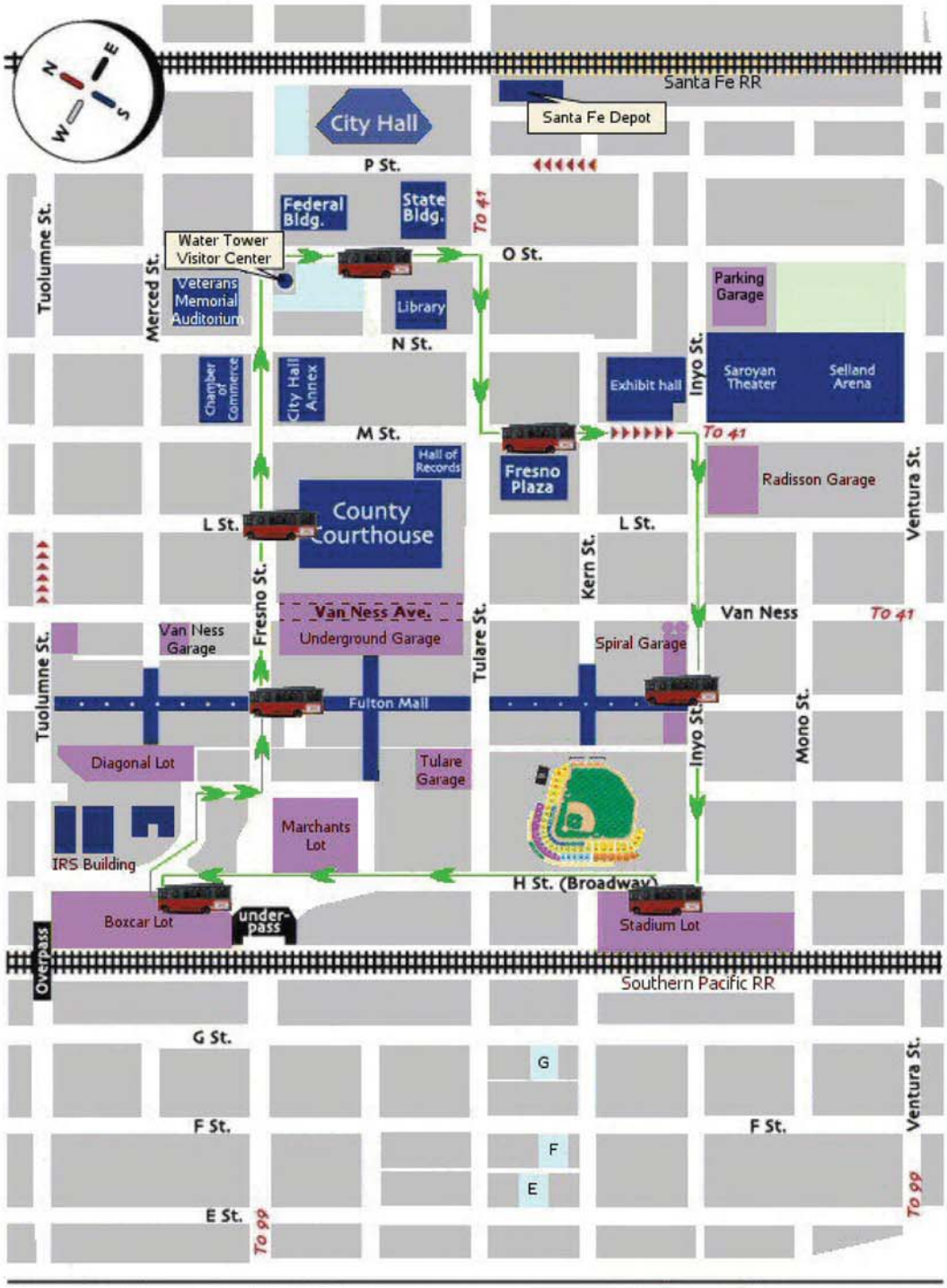
Figure 5-1
PARKING EXEMPT AREAS
100576/BASE - 12/18/06



Source: Downtown Parking Map, City of Fresno

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Figure 5-2
DOWNTOWN PARKING FACILITIES
100576/BASE - 12/19/06

Table 5-1. Downtown Parking Inventory

Off-Street	**2002[5]**	**Change from 2002[6]**	**Total in 2006**
Public Lot	2,295	1969	4,264
Public Garage	2,282		2,282
Private Lot	13,855		13,855
Private Garage	1,737		1,737
On-Street			
Metered	1,332	457	1,789
Non-Metered	4,599		4,599
Other	416		416
Total	**26,516**	2426	**28,944**

Sources: Walker Parking Consultants, 2002. City of Fresno, 2006.

The overall occupancies for the downtown in 2002 were found to be at 51 percent, well below practical operating capacity of 85 percent.[7] This indicates that downtown Fresno has (suffers from) an abundance of underutilized parking and should consider taking measures either to reduce or reallocate existing supply through infill/redevelopment opportunities or revisit existing development requirements to avoid increasing the parking supply. Parking utilization data was collected for the four Downtown sub-areas and is presented in Tables 5-2 and 5-3.

Table 5-2. Downtown Fresno Overall Peak Occupancies 11AM

	Total Inv.	Weekday	%Occupied	Weekend	%Occupied
Off-Street	20,169	10,935	54%	3,117	15%
On-Street	6,347	2,550	40%	1,324	21%
Total	26,516	13,485	**51%**	4,441	17%

Source: Walker Parking Consultants, 2002.

Table 5-3. Occupancy Summary for Downtown Sub-areas

	Total Inv.	11am Occupancy	%Occupied	5PM Occupancy	%Occupied
Fulton Mall	6,246	3,697	**59%**	**--**	**--**
Government Buildings	5,174	3,516	**68%**	**--**	**--**
Ball Park	7735	--	--	1,503	**19%**
Convention Center[8]	--	--	**53%**	**--**	**--**

Source: Walker Parking Consultants, 2002.

Current operational data indicates locations of highest demand in the areas of the Federal courthouse and Fulton Mall (lot numbers 2, 4, and 8). The remaining lots and parking garages have observed utilization rates far lower than practical capacity (85 percent). This indicates that there is a significant of parking inventory available to potential users that should be considered before additional parking is required and/or built for new/redevelopment projects. Furthermore a system of wayfinding to direct users to existing unused parking would help better utilize existing supplies. Current operator provided occupancy data is provided in Table 5-4.

[5] Fresno Downtown Parking Study, 2002.
[6] Parking inventory update, Fresno Parking Manager, September 2006.
[7] According to Weant and Levinson's *Parking* (1991), peak parking demands should represent the "85 percentile" of demand values or that, on average, the demand should be exceeded by only 15 percent of the time (i.e. practical capacity). Therefore, the minimum zoning requirements should be set at around five to ten percent more than the peak demands.
[8] Peak occupancy in sub-area prior to construction of convention center (11AM).

Table 5-4. Public Parking Facility Occupancies (2006)

Ace Lot No.	Name	Stalls	Occupancy	Monthly/Transient
4300	Parking Garage #4	320	80%	M&T
4301	Parking Garage #7	591	50%	M&T
4302	Parking Garage #8	942	80-100%	M&T
4305	Parking Lot #2	204	80-100%	M&T
4308	Stadium Lot	522	40%	M&T
4309	Boxcar Lot	542	60-70%	M&T
4310	Promenade Lot	674	40%	Not Open (irregular)
4311	Convention Center Garage Event	1552		Not Open (irregular)
	Event		10-15%	
	Non-Event		25-75%	
4313	Broadway Lot (Merchant & Plaza)	311	70%	M&T

Source: ACE Parking, October 2006.

Parking Pricing

The Colliers' sixth annual North American Parking Rate Survey (2006) of 59 North American cities shows that over the past 12 months, the cost of parking increased by 4.4 percent (monthly rates) in response to an overall improved business climate (demand for office space and strong retail spending).[9]

However while the average city's parking rate has been rising for the past three years, Fresno's rate has not changed in six years. According to Fresno's parking manager, the City has so far been unwilling to approve a parking rate increase, despite the economic indicators and recommendations from the department of public works as to the need to support and fund existing facilities for operation, maintenance and significant debt services. Furthermore, there appears to be room for an increase because according to the Collier study, the Fresno has the 5th lowest monthly parking rate of the 59 North American cities surveyed (based on Fresno's highest monthly rate of $55). The five least expensive parking districts in the U.S. are (median monthly unreserved rates):

- Phoenix -- $35.00 per month
- Walnut Creek, CA -- $35.00 per month
- Bakersfield, CA -- $40.00 per month
- Reno, NV -- $45.00 per month
- Fresno, CA -- $55.00 per month

Downtown parking fees, time limits and hours of enforcement are assigned according to event and non-event and on-street versus off-street locations. Fees collected from parking operations are placed in a parking meter fund used for operation and maintenance costs of the district. Table 5-5 summarizes the parking fees and regulations for Downtown Fresno.

[9] Sixth Annual North American Parking Rate survey, Colliers International, 2006.

Table 5-5 Downtown Fresno Parking Fees and Regulations

Type	Hours of Enforcement	Time Limits	Transient Fee	Monthly Fee
Event				
Meters	6AM to 10PM	2 hrs until 6PM 4hrs after 6PM	$0.60/hour	--
Lots/Garages	6AM to 10PM	No limit	$7/convention center, $5/other facilities	City Hall lot: $15/month Lots: $35/month Garages: $55/month
Non-Event				
Meters	6AM to 6PM	2 hours	$0.60/hour	--
Lots/Garages	6AM to 6PM	No limit	$7/day, $1/hour	City Hall lot: $15/month Lots: $35/month Garages: $55/month

Source: City of Fresno, 2006.
Notes:
1. Monthly permit holders are allowed to park in metered spaces
2. All meters, lots and garages are free on holidays and weekends, except for events.

While the policies and recommendations in the 2025 General Plan and CACP encourage the construction of parking garages to help address the parking needs of the downtown, the City is currently saddled with the debt service from their most recent parking facilities which will take until 2012 to pay down according to the parking manager. This in concert with the low average utilization for off-street parking lowers the need for such facilities in the downtown at this time. The City should focus efforts on improving the environment around the existing on and off-street facilities to help increase existing facilities' utilization. The City currently has no parking design standards in place regarding the location of or design of parking facilities (such as requiring off-street parking in the rear of buildings), the treatment of streetscapes, pedestrian environments and/or transit corridors. The CACP does have one implementation action recommending parking garages with ground floor retail (TRA 4-5).

The City should develop and implement parking design standards improvements which should focus should focus on:

- Making parking garages and facilities more user friendly and accessible for pedestrian and vehicle access.
  - Wayfinding system to easily direct vehicles to available parking facilities.
  - Intelligent Transportation Systems (ITS) for real-time information on available parking and pricing.
- Designing for walkability, by better integrating facilities with their surroundings.

FUTURE ISSUES AND OPTIONS

The Fresno County Council of Governments (COG) projected 49 percent job growth from 2006 to 2030 for downtown Fresno.[10] Based on current occupancies and ITE parking generation rates for the employment categories provided and adjusted for peak hour and urban locations, Wilbur Smith Associates (WSA) estimates a parking demand growth of 25 to 32 percent depending on the levels of supply added.[11] This is a corresponding increase in parking demand from 51 to approximately 76 to 83 percent based on job growth forecasted for downtown Transportation Analysis Zones (TAZs). This leaves demand well within current supplies for the twenty-five year planning horizon. Job growth and corresponding parking demand is summarized in Table 5-6.

Table 5-6. 2030 Projected Job Growth and Parking Demand

Year	Jobs	Parking Demand	Parking Supply	Utilization
2006	26,797	13,430	26,516	51%
2030	39,917	21,995	26,516	83%
--	--	21,995	28,942	76%

Source: Fresno COG, 2006. WSA, 2006.

The Central Area Community Plan identified a "Comprehensive Parking Plan and Management Program" as an implementation action toward developing adequate, safe and convenient on- and off- street parking to accommodate activity centers.

While Fresno has parking requirements for development, it does not have a comprehensive parking plan and management program to best manage its City's needs and plan for future growth. On average off-street parking facilities in the downtown are highly underutilized and several downtown surface lots will likely be considered for in-fill development/revitalization projects in the next 25 years. Due to the significant effect that parking has on the shape of development it would be best to address parking needs and related development issues with such a plan, rather than on a case by case basis. The development pressure in the 25-year planning horizon due to employment and overall population growth in the downtown has intensified several issues:

- Controlling/Managing parking supply for/from future developments. According to the City parking manager, there is already pressure for new parking facilities while the current facilities are underutilized. Currently these include:
  - A new parking garage planned for Armenian Town
  - The County Library which will be built in 5-7 years is lobbying for a parking garage
  - A parking facility will be requested in northwest downtown when the county takes over the federal courthouse facility
- Redevelopment projects building parking without regard to the overall downtown parking demand. Typically redevelopment projects in Fresno are built with on-site parking without regard to parking demand and supply of the surrounding area. If a redevelopment project were part of the comprehensive downtown parking plan, the entire site could be built-up and parking could be located in a central or satellite location to serve several destinations as demand required.

[10] 2006 existing and 2030 job growth projections were provided by the Fresno COG for Fresno downtown Travel Analysis Zones (TAZs).

[11] The 25 percent projection was based on the addition of 2429 parking spaces since the 2002 Walker Parking study. The 32 percent projection was based on no change in parking inventory since 2002.

- Infill development replacing off-street lots (eliminating off-street lots) and strategies for parking consolidation.
    - Surface lots could be targeted for development in tandem with parking management and strategic supply reallocation.
    - Rather than requiring new parking or parking replacement, developers could pay in-lieu fees that contribute to the parking management plan's parking district, that either requires parking replacement (via shared facility) in a high demand area or other area improvements if the area already has excess supply.
- If parking is replaced, determination of best locations for future parking development
    - Satellite parking tying into peripheral transit system
    - Centralized shared parking from in-lieu fees and reduced development requirements

RECOMMENDATIONS

Overall parking occupancies for the city are well below effective capacity of existing on and off street supplies. Parking policies and programs need to be defined to guide the development of a comprehensive parking management strategy for downtown Fresno. Such a strategy will include policies and programs to consolidate parking, facilitate shared parking programs and those that work to increase the utilization of the current facilities, rather than increasing existing supply. The following issues merit investigation for downtown Fresno:

1. What level of parking convenience should be provided?
2. What pricing policy should be adopted?
3. How much parking is needed to support the planned development growth?
4. Where should the parking be provided (districts/TAZs)?
5. How much of this parking should be dedicated versus shared parking?
6. How much of the parking should be privately versus publicly provided?
7. What share of the parking should be on street – what type?
8. What land banking strategy if any would facilitate phased increases to parking supply?
9. What ITS smart parking strategies have promising roles for the downtown?
10. What parking design standards should be implemented for downtown?
11. How can wayfinding and signage make parking easier to use?

CHAPTER 6 – PEDESTRIAN ISSUES AND OPTIONS

Background planning efforts for the City of Fresno and the Downtown in particular have identified the importance of a walkable downtown both for the ability to support a vibrant economy as well as for the ability to attract residents, visitors, businesses and employment to the urban core. The goal for the future of Downtown Fresno includes providing a sense of place with a blend of work, living and leisure opportunities. Walkability is a key component of the smart growth development envisioned for the future of the Downtown. While pedestrian facilities are a key element of the walkable community, decisions made for traffic, transit, bicycle, parking and land (re)development will also play a fundamental role.

CURRENT SETTING

Downtown Fresno has the basics for a good walkable community. The terrain is flat and the climate is generally mild. Unlike most areas where harsh winter weather may discourage walking, the high temperatures of Fresno in the summer are a greater deterrent to walking or other outdoor activities. Most of the roadways in Downtown have sidewalks on both sides of the street; they vary in width but are generally in good condition. Short block lengths are typical for the Downtown except where roads have been closed for superblock development. In addition, there are several pedestrian malls in the Downtown: Fulton Mall, Mariposa Mall and several blocks of Kern Street adjacent to the Federal Courthouse. Streetscape treatments with street trees, planter boxes and travel lane reductions have been installed on Kern Street southwest of the pedestrian mall and on Van Ness north of Tuolumne Street. The Van Ness installation was done as part of the Cultural Arts District Streetscape Project.

The evaluation of the pedestrian environment in Downtown Fresno has revealed many issues related to the pedestrian environment. These issues focus on wayfinding, safety, barriers, amenities/convenience, maintenance and ADA compliance.

Wayfinding – The lack of wayfinding, particularly at entrances to the Downtown, is not specific to pedestrians although taking a wrong turn is more of an inconvenience to a person on foot. Because of the juxtaposition of the street grid layouts between the downtown core and surrounding city, there are several forks along the routes into Downtown, particularly along Divisadero. Without signage, it is difficult to know which fork to take. Added to this are the detours caused by street closures.

Safety – Safety is a key concern for pedestrians including protection from vehicle traffic as well as personal security when walking especially at night. Lighting is a key factor in judging whether or not a location is safe. Although most streets in the Downtown have street lights, these lights are infrequent and are generally not at the proper scale to provide appropriate lighting for pedestrians. In addition, many of the store fronts and buildings are vacant; consequently, no additional lighting is provided by these sources. Most of the sidewalks are located directly adjacent to the street; consequently there is limited buffering to separate pedestrians from traffic especially where on-street parking is not allowed. Many of the crosswalks are poorly marked. Instead of using standard high reflective paint or tape, some crosswalks use special paving materials (i.e. bricks, adobe pavers, concrete pavers) to denote the crosswalk. This differentiation is often subtle especially as paving materials fade over time causing the crosswalks to be difficult to see at night. Midblock crossings on Tulare Street and the intersections with Kern Street are examples. Even the reflective paint or tapes will lose their distinction over time. Bicyclists on sidewalks pose another safety hazard for pedestrians. While bicyclists are not legally allowed to use the sidewalk in Downtown, this prohibition is often not enforced.

Barriers - Barriers caused by street closures can also be a security issue for pedestrians. They often require pedestrians to travel several blocks out of their way thus increasing the time required to walk to their destination. Many of the superblocks, such as the County Courthouse, are surrounded by park. Although these open spaces can be used as short cuts during the day and offer a pleasant opportunity for sitting and enjoying the day, they are often forbidding at night especially when not well lit. Freeways and railroad tracks can create significant barriers to traffic and especially to pedestrians. Crossing points are often limited and with fewer opportunities for access, traffic volumes are considerably higher on these roadways. Because of the cost of construction for bridges or underpasses, the widths are often constrained and sidewalks are often narrow and directly adjacent to the roadway. Crossing of the Union Pacific Railroad tracks at Stanislaus, Tuolumne, and Divisadero Streets are good examples of less than pedestrian-friendly overpasses. Lastly, crossing freeway ramps is always a hazard for pedestrians. Motorists are either intent on speeding up to merge with freeway traffic or are concentrating on re-entering street traffic. Many freeway on/off-ramps have large radius curves to accommodate higher traffic speeds and are often not signalized.

Amenities/Convenience – Another key factor in the decision to walk is the level of comfort or convenience provided by the walking environment. As previously mentioned, the Downtown is flat; topography is not a concern. However, the high summer temperatures can be unpleasant especially when exacerbated by the capacity of asphalt and concrete to absorb heat. Unfortunately, there is a lack of tree or other vegetative plantings along the Downtown Fresno streets to either provide shade or offset the absorption of heat by roadway materials. The original grid of Downtown had short blocks which are conducive to pedestrian travel. However, many of these blocks have been combined into superblock developments often without pedestrian shortcuts or pathways such as at the medical center complex on Divisadero and Fulton Street. Pedestrian travel is slow and provides ample time to 'stop and smell the roses'. However, if there are no roses or other street level activities or interest, walking can be tedious. Much of the street level development in Downtown Fresno is vacant, oriented towards parking rather than the street or setback a considerable distance from the street. This lack of activity does not encourage strolling, provide opportunities for browsing in shops or encourage walking along the street.

Maintenance – Although some pedestrian facilities are available in Downtown Fresno, they are often not kept in good condition. The sidewalks are dirty and overhanging vegetation often blocks the sidewalk and surrounding signage. Many of the crosswalks are faded and difficult to see especially at night.

ADA Facilities – Most of the sidewalks and intersections have ADA ramps. However, many of these are located at the corner and no longer meet ADA requirements. Current guidelines dictate that ramps be perpendicular to the street and located to guide users to the crosswalk.

FUTURE ISSUES AND OPTIONS

Wayfinding – Signage will assist pedestrians in finding their way through the Downtown and to their destinations. Directions will be necessary at complex intersections and decision points. In addition, signage should identify alternative pedestrian pathways around or through barriers. Downtown maps including key destinations, 'you are here' locations, and walking times would help orient pedestrians, particularly less frequent visitors.

Safety Improvements – Key to the improvement of pedestrian safety will be to provide pedestrian-level lighting along streets and off-street paths. Particular attention should be paid to the addition of lighting along vacant buildings and storefronts. Buffers between pedestrian paths and travel lanes would enhance the pedestrian environment. In fact, on streets with sidewalks adjacent to the curb, it is preferable to have a parking lane between the sidewalk and moving vehicles. Pedestrian crossings at intersections and midblock locations should be highly visible to motorists; night time visibility is with more visible crossings; improve bicycle travel and enforce sidewalk prohibition.;

Removal or Mitigation of Barriers – While it may not be possible to completely remove some existing barriers, the addition of new barriers can be avoided. For pedestrian and traffic considerations, future street closures should not be considered. If a street closure is unavoidable, a safe and convenient pedestrian pathway through the complex should be provided. Existing barriers can be mitigated by creating well-marked and well-lit pathways through the superblocks, provide safe pedestrian zone on bridges and underpasses with lighting, barriers from traffic, additional pedestrian zone and/or separate pedestrian crossings. Pedestrian crossings of freeway ramps can be enhanced with traffic and speed controls, lighting, signage and/or pavement markings.

Amenities/Convenience – The pedestrian environment can be greatly improved in Downtown Fresno with the addition of shade and/or vegetation planting to mitigate the high summer temperatures. Shade can be provided with shade trees, awnings or canopies. Whatever vegetation is added along the street or pedestrian zone must be kept trimmed back from the pathway and not obscure signage. In addition, vegetation should be low enough or high enough to not pose a security hazard. One of the benefits of pedestrian travel is that it offers the walker the opportunity to view his or her surroundings at a leisurely pace. Shop windows, public art, and landscaping provide interest; sidewalk cafes and outdoor seating areas provide places to meet friends or enjoy a sunny afternoon. Street activity will attract more users and therefore more potential patrons of stores and restaurants. Although the design of the street infrastructure (i.e. wide sidewalks, tree plantings, seating areas, buffers from traffic, low traffic volumes and speeds) will be a factor in developing a vibrant pedestrian-friendly downtown, the choice of land uses and architectural standards for future development will have an even greater impact on what the Downtown will become.

Maintenance – There is nothing less appealing to a pedestrian than to have to avoid messes on the sidewalk, broken pavement and overhanging vegetation. The investment in pedestrian facilities and amenities should include maintenance to keep sidewalks, seating areas and landscaping in good and usable condition.

ADA Facilities – Part of any new development or redevelopment of streets or pedestrian facilities should include accommodation for ADA access.

RECOMMENDATIONS

1. A wayfinding signage and downtown map program would help all road users enter/exit and travel through the Downtown.
2. Removal/mitigation of barriers and gaps closures in the pedestrian network are important factors in pedestrian travel and should be evaluated further.
3. Identify traffic control devices, traffic calming techniques, and pedestrian safety measures that might be applicable to the Downtown such as bulbouts, pedestrian countdown displays, and pedestrian refuge islands.
4. 'Complete Streets' policy for Downtown Fresno would address many of the issues both related to transportation and land use that affect the street and pedestrian environment. 'Complete Streets' are designed and operated to enable safe access for all users, not just speeding traffic.

CHAPTER 7 – BICYCLE ISSUES AND OPTIONS

Bicycling is recognized as an important transportation alternative to the automobile for many trips. The Central Area Community Plan calls for a "comprehensive bikeway system to link activity centers and districts" including development standards for the inclusion of bikeway on public and private rights-of-way and facilities for secure bicycle parking.

CURRENT SETTING

Similar to the discussion for walking in Chapter 6, Downtown Fresno has the basics for a good bicycling community. The terrain is flat and the climate is generally mild. Unlike most areas where winter rains and cold temperatures may discourage bicycling, the high temperatures of Fresno in the summer are a greater deterrent to bicycling or other outdoor activities. Currently, many of the streets leading to Downtown (First, Elm, California, Church and Kearney Streets) have bike lanes or are signed as bike routes. There are no such facilities in the Downtown itself although bike lanes are planned for H Street in the near future. All Fresno Area Express (FAX) buses are equipped with front-mounted bicycle racks with the capacity to carry two bicycles. Amtrak San Joaquin trains are equipped with bicycle racks in many of the cars; bicycles can be carried on Greyhound only when boxed as luggage. Bicycles cannot be ridden on the sidewalks in the Downtown although this prohibition is not strictly enforced; the prohibition against bicycle riding on Fulton Mall is, however, enforced.

Bicycle parking in the Downtown is limited although Fresno City Hall, the Federal Courthouse and Convention Center do have bike racks. The City has a bicycle parking stall policy for non-residential land uses that requires the total number of bicycle parking stalls of a given development be equal to 10 percent of the required number of vehicle parking stalls up to a total of 10 bicycle parking stalls.

A Bicycle Transportation Plan for the City of Fresno was adopted in December 2003. The purpose of this plan was two-fold: 1) To describe the existing bicycle transportation system and facilities and 2) To describe the planned bicycle transportation system that is intended to promote increased bicycle travel in the future. The plan is expected to be implemented by Year 2025 but does identify the high priority projects for the short-term. The plan also addresses the requirements to be eligible for funding from the State Bicycle Transportation Account. Most of the arterial and collector streets in Downtown are identified for future bike lanes. Bicycle network for City of Fresno is shown in Figure 6-1.

The prioritized bicycle project list focuses on the completion of existing bikeway corridors by filling the gaps rather than creating new bikeway corridors. The selected corridors are major, long distance transportation routes that link residential areas to schools, shopping, employment and Downtown. The projects of most significance for access to Downtown include:

- First Street
- Palm Avenue
- Church Avenue
- Belmont Avenue
- Ventura Avenue
- Fresno Street
- Jensen Avenue
- West Avenue

The evaluation of bicycling in the Downtown has identified several key issues of most concern to bicyclists including:

Access to Downtown – Bicyclists will want to access Downtown from all directions. Because of the many street closures, there are limited routes that connect Downtown to the suburbs. The primary bike access routes are First Street via Tulare from the north, Van Ness/Fulton from the Tower District (north), H Street from the northwest, and Ventura from the south via California, Elm and Church. Unfortunately these routes are also those most used by motorists; consequently they are heavily traveled and their use poses a challenge to bicyclists in sharing the road. Specific entries into the Downtown at the intersections with Highways 99, 41 and 180 can also be difficult. The many on/off ramps as well as under/overpasses are a challenge to bicyclists. A particular hazard is found on Tulare; Tulare splits with Divisadero at the same point that it crosses over Highway 41. Also, crossings of railroad tracks can be difficult for bicyclists. Many crossing are at-grade and have been improved with concrete pads that deter the formation of pot holes and gaps around the rails; these treatments reduce the hazard for bicyclists. The overpasses on Stanislaus and Tuolumne are very narrow and a significant hazard for bicyclists and even pedestrians. The UPRR underpass at Fresno Street is wide and well-paved although the hill might be a challenge to those more used to the flats of Fresno! As discussed in Chapter 6, the lack of wayfinding, especially at key decision points and road merges, is also an issue for bicyclists. Bicyclists can easily find themselves on the wrong street with no idea how to get back to where they want to be. Highway directional signs are posted at many of these decisions points; these can be misleading one in thinking they are on-ramps only when in fact they are the primary access roads into Downtown.

Downtown Streets – Once in the Downtown, the bicyclists must carve out space for themselves on the road as best they can. There are no specific bike lanes or bike routes in the Downtown. Sharing the road can be a challenge. Many streets are blocked and traffic tends to migrate towards the streets that provide the best access. Unfortunately those are also the streets that are most in demand by bicyclists. The needs of the various road users (cars, bicycles, pedestrians, transit) are often in conflict. For example, the center median which may be installed to provide left-turn pockets, a landscape buffer between traffic directions, or a refuge for pedestrians crossing wide streets also reduces the curb-to-curb width of the street and may preclude the option of adding bike lanes. Similarly, efforts to reduce road width with intersection bulbouts making it safer for pedestrians to cross the street will also constrain the lane widths and make it more hazardous for bicyclists. On-street parking is a convenience for motorists and is seen as a necessity for merchants; from the bicyclist's point of view, this same on-street parking may be better used to provide bike lanes or wide curb lanes especially when adequate off-street parking is available.

Bicycling in the Downtown is hampered by the lack of bicycle-sensitive loop detectors at actuated traffic signals. Although most signals appear to be pre-timed, there are some actuated signals especially for the protected left-turn phase. At locations where bicycle-sensitive loop detectors do exist, appropriate loop detector pavement markings should be used to guide the bicyclist of the location to activate the sensors.

As a pedestrian zone, Fulton Mall is not open to bicycle traffic. This prohibition is enforced. Because of street closures and heavy traffic on surrounding streets, there are no good alternatives for bicyclists.

Parking – Although some bicycle parking does exist in the Downtown, it is limited. Even Fulton Mall which prohibits bicycle riding does not offer bicycle racks for those wishing to park and walk the mall. Bicyclists will not park far from their destination and will not leave their bicycles in a secluded location. Instead they will choose to lock their bikes to trees, signs or parking meters near the entrance to their destination or in active locations. The Fresno city code does require bicycle parking for certain land uses. However, these requirements might not be suitable for Downtown. Secure and convenient bicycle parking should be provided for visitors and employees as part of overall Downtown improvements.

FUTURE ISSUES AND OPTIONS

Because bicycles are vehicles and have the same rights and responsibilities afforded to automobiles, bicycle travel should be considered as part of all transportation planning and development in the Downtown. Of course, this is easier said then done. There is much competition for limited road space: cars, parking, delivery vehicles, buses, pedestrians, and bicycles.

Bicyclists entering the Downtown will be using a limited set of routes. They will benefit from better wayfinding signage especially to navigate through the more complex intersections. In addition, the addition of bike lanes or wide curb lanes would make sharing the road safer for bicyclists.

Within the Downtown, it is more difficult to determine which roads will be used by bicyclists. Because the Downtown is a destination in itself, all streets must accommodate bicycle traffic. Efforts to provide better facilities for sharing the road (i.e. bike lanes, wide curb lanes, slower traffic speeds) would be beneficial for all Downtown streets. Providing better facilities for riding on-street will keep bicyclists off the sidewalks.

Bicycle parking should be provided throughout the Downtown. This parking should be convenient and secure for bicycles parked only a few hours or left for the whole day. Bicycle parking should not impede pedestrian circulation.

RECOMMENDATIONS

1. Develop a wayfinding program for access to the Downtown.
2. Evaluate entry points into Downtown to identify potential improvements for bicycle circulation. What can be done to minimize the hazards and maximize the convenience of bicycling to Downtown? Are there alternative entries that can be developed for bicycle use such as San Pedro instead of Blackstone or First Street?
3. Identify bikeway pavement markings and signage that would be appropriate for use in Downtown (i.e. sharrows, share-the-lane signage, bike lanes, bike route signage).
4. Identify potential shortcuts or cut-through locations to mitigate street closures. This study can be done in conjunction with the effort for the pedestrian network.
5. Investigate the benefits of signal progression timing for primary bicycle routes into or through Downtown.
6. Evaluate the pros/cons of bicycle use of pedestrian malls.
7. Identify Safe Routes to Schools opportunities in the Downtown.
8. Develop a 'Complete Streets' policy for Downtown. How can the streets provide a better balance between users? Can traffic be slowed to better accommodate bicyclists without significantly impeding transit and autos? Can parking be removed to add bike lanes? Will better bicycle facilities encourage more bicycle trips and fewer car trips?
9. Develop a bicycle parking policy program for the Downtown.

CHAPTER 8 – FULTON MALL ISSUES AND OPTIONS

Fulton Street was developed into a downtown pedestrian mall in 1964. It was one of the first downtown pedestrian malls developed in the United States. In its 40 years of existence its historic retail and office economic strength has largely moved outward into the suburbs. While activities and uses have weaken, the trees have matured and the artworks and streetscape have survived. The Mall is seen as the downtown's retail commercial center using its urban pedestrian ambiance as an retail edge versus the region's large suburban shopping complexes. In the Mall's early stage, a mini trolley reportedly operated along its length.

CURRENT SETTING

The Fulton Mall extends from Tuolumne Street in the north to Inyo Street in the south, a distance of six blocks. Two traffic crossings are allowed along these six blocks, Fresno Street and Tulare Street. Both of these crossings are signalized. Physically the mall is about ___ feet in length and ___ feet in width.

No vehicular traffic is allowed on the Mall, including public transit or bicycles (pedicabs are allowed). The location of the mature trees, public art and streetscape features cover the entire width of the mall and do not provide a clear straight alignment for vehicular traffic.

As noted earlier, the original circulation concept integrating the Mall into the downtown street network included one way streets paralleling the Fulton Mall on both sides. The Broadway Diagonal has subsequently removed and Van Ness Street has been converted back into a two-way street. These subsequent changes have complicated traffic circulation around the Mall. The Mall, however, is served by service alleys on each side.

ISSUES AND OPTIONS

A number of planning and design studies have suggested re-introducing vehicular traffic to the mall in order to help reinvigorate retail and other businesses along the mall. More recently public meetings focused on how to revitalize the mall, have strongly concluded that the traffic free mall needs to be preserved. The differing opinions do not relate to mobility and circulation as much as with the importance of traffic visibility to economic vitality. In general, analysis of pedestrian malls in other American and European Cities has indicated that their success or failure is not determined by the presence or absence of motor vehicles, but rather, by the overall economic health of the area in which the mall is located, and the relationship between the pedestrian area and various significant activity centers. Other downtown streets in Fresno that have traffic visibility and convenient parking are also struggling economically. Thus it does seem clear that traffic visibility and convenience is not the "silver bullet" that will itself revitalize businesses along the mall. It is possible that reintroducing traffic onto the mall might help strengthen businesses. There have also been suggestions that the mall is too long and should be shorten by allowing traffic on the blocks north of Fresno Street.

Among the transportation options are:

1. Total abandonment of the mall and conversion to a regular public street.
2. Allowance of traffic in one direction of travel similar to the Santa Cruz mall
3. Opening the northern two blocks of the mall for partial traffic use
4. Allowing only public transit shuttles to use the mall
5. Allowing bicycles to use the mall
6. Upgrading Home Run Alley to a functioning traffic link
7. Retention and enhancement of the pedestrian nature of the mall

Of these options, no public support is evident for the first option of total abandonment of the mall. Allowing public transit and bicycle use of the mall would introduce safety risks and would adversely impact the pedestrian ambiance of the mall. Transit and bicycle speeds are not generally compatible with pedestrian speeds. While the recent public meetings on the mall showed little support for reintroducing traffic on the mall, prior planning efforts have argued for it. Thus, this is an active issue. Upgrading the mall for pedestrian use is of definite interest. Potential upgraded use of Home Run Alley seems to offer further study.

RECOMMENDATIONS

It is clear that the weaknesses of the current mall relate more to land use than they do transportation. Focusing more of the demand for regional and downtown development towards the mall would help strengthen it. The more jobs and housing located within convenient walking distance to the mall the stronger its economic potential. Locating a new 500,000 square foot office development within one or two blocks of the mall, for example, would more effectively promote economic revitalization of the mall than a similar development in Armenian Town or Chinatown. While it is true that revitalization of the mall is not the over-riding development objective for downtown, a strong vibrant mall can act as a catalyst to attract even more development to downtown. After all the prime reasons to locate offices downtown is their synergy achieved within other walk-able offices and with the walk-able retail businesses. Office locations downtown that require using a car to get to other downtown offices and to the mall, suffer all of the disadvantages of a downtown location, without reaping the benefits. The same is also true of housing. Increasing housing and office development near and on the mall should be a major focus of mall revitalization efforts and downtown redevelopment planning.

Three other land use related issues for the mall are

- Should the mall be structured into three distinct centers – government, retail and entertainment?
- Management of the historic buildings to prevent their vacancies from blighting the mall?
- Strategies for minimizing vacant storefront blighting influences?

As the focus of the DTIS is transportation, these land use issues are flagged for further study by others.

Regarding transportation issues warranting study:

1. Enhancements to the pedestrian features of the mall
2. Strengthen access to the mall for all modes
3. One way mall traffic operations concept
4. Traffic use of the northern two blocks
5. Opportunities related to upgraded use of Home Run Alley